PRACTICE SCHOOL - II

CHRONICLES
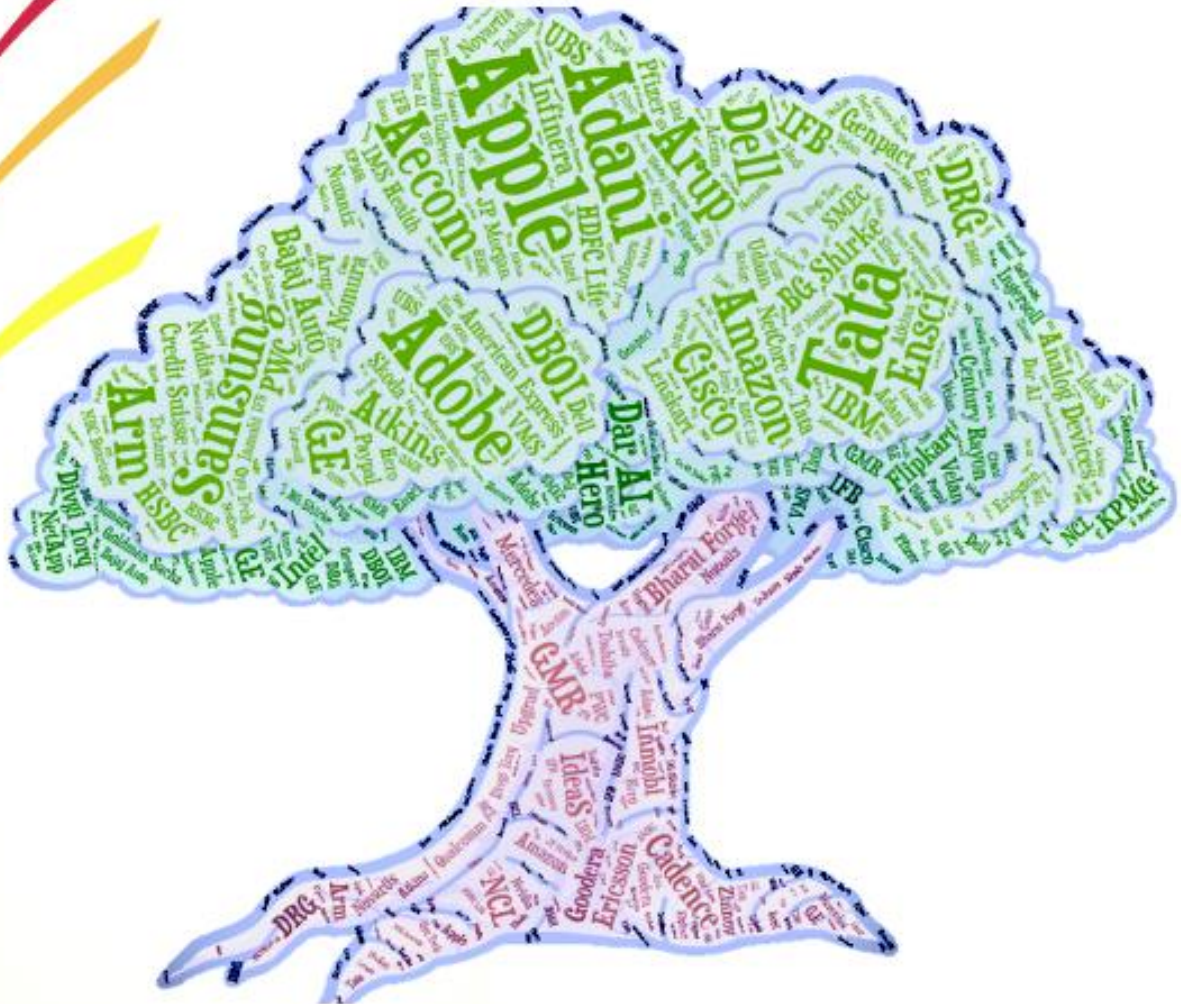
Publication Cell
– Practice School Division

From the Desk of the Editor

It is my great pleasure to bring forth the 8th edition of the PS Chronicles. This edition features over 400 articles from mentors, students and PS faculty sharing their experience from the I Semester of 2019-2020. This huge increase in numbers is a testimony to the usefulness of the PS- II Chronicles and its increasing popularity.

The primary aim of the PS Chronicles is to record the overall PS-II Experience of all the stakeholders – the students, the PS Faculty and the Industry Mentors.

The objectives of this Chronicle are manifold
  - Prospective PS-II students can get to know about the experience of their seniors, currently at PS – thereby increasing awareness in the student community
  - Increasing awareness among faculty about the nature of work happening in PS
  - Bring back the experience gained in PS into academics- making the curriculum more industry relevant.

I would like to thank everyone who has participated in this activity- the students, the industry mentors and the faculty for sharing their experience. Thanks for making the 8th edition an even more bigger and better experience.

I would also like to thank Prof. Arun Maity, Prof. Muthu Kumar and Prof. Mahesh Kumar Hamirwasia for reviewing the articles. I would also extend my thanks to Mr. Om Prakash Singh Shekhawat, Mr. Varun Singh, of the Practice School Division, of BITS, Pilani – Pilani Campus for his help in bringing out the editions of PS II Chronicles.

I would be happy to receive any feedback regarding the Chronicles. Please feel free to email me at psd@pilani.bits-pilani.ac.in or at anil.gaikwad@pilani.bits-pilani.ac.in

Anil Gaikwad

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PS-II Station : Aditya Birla Insulators , Halol

Faculty

Name: Srikanta Routroy

Student

Name: ABHINAV KUMAR SHARMA (2016A4PS0443P)

Student Write-up

Short Summary of work done during PS-II : Designed SOPs for PPC department for processes like Extrusion Planning, Packing Indentation, Metal Part Indentation etc. Apart from that I worked on Warehouse touch points and listed down each activity that is involved and the risk associated with it. After that I had to suggest some controls to minimize the risk.
Apart from that I was assigned to check the progress of delivery of insulators corresponding to the proposed plan.

Tool used (Development tools - H/w, S/w) : MS Excel, MS Word

Objectives of the project : To design SOPs for PPC and Warehouse department. And to suggest controls to lower down the risks.

Major Learning Outcomes : Adaptation to corporate culture, etiquettes of communication, punctuality, networking are some of the important things. Apart from that I learnt more about MS Excel and basic dynamics of Production Planning & Control department.

Details of Papers/patents :

Academic courses relevant to the project : None.

Student Write-up

Short Summary of work done during PS-II : I was involved in the project having Analysis of layout management and consulting changes. Second project was on product costing and identifying losses.

Tool used (Development tools - H/w, S/w) : FlexSim, Excel

Objectives of the project : Consulting Layout Changes and minimizing losses

Major Learning Outcomes : knowing deeply about management and working closely to core manufacturing industry

Details of Papers/patents : none

Academic courses relevant to the project : CAD, Finance

PS-II Station : Adobe Systems , Bangalore

Faculty

Name: H Viswanathan

Student

Name: BARTANWALA MUSTANSIR AZIZ (2015B3A70515P)

Student Write-up

Short Summary of work done during PS-II : I worked on two different projects during my internship, both were aimed at researching and developing of new intelligent features for the Adobe LightRoom application, the projects were titled "Auto-complete edit suggestions" and "Content-aware smart presets" both involved image processing, deep learning, and android development. Both the features were independently built and integrated into the existing LightRoom application.

Tool used (Development tools - H/w, S/w) : Android Studio, Python, Docker, OpenCV

Objectives of the project : Implementing new intelligent photo editing features

Major Learning Outcomes : Android development, Code Management, Image Processing, Computer vision and Machine Learning techniques used for images.

Details of Papers/patents : filled a patent titled "Auto-complete Edit Suggestions" in the USPO.

Brief Description of working environment, expectations from the company : Timings were flexible and work culture was good

Academic courses relevant to the project : Data Structures and Algorithms, Image Processing, Object Oriented Programming

Name: KORIPALLI SRI SAI VENKATA RAMA KRISHNA (2015B3A70610H)

Student Write-up

Short Summary of work done during PS-II : I worked on 3 different research projects. The first project is about the estimation of object homogeneous defocus map estimation. We created

a complex neural network architecture to find the defocus map of the given image. A combination of CNNs and Image processing modules were used to create the defocus map. The second project is about creating an automatic crop tool for the export workflow of Lightroom. We created a two-stage process to do this. The first stage gives the subject area in the image and the second stage does optimizations to maintain the image composition after the crop. The third project is about building Probabilistic Graphical Models in improving Lightroom performance.

Tool used (Development tools - H/w, S/w) : Jupyter Notebook (and google co-lab), HQL
Python packages: Tensorflow, PyTorch, Seaborn

Objectives of the project : To estimate the defocus map from single image.

Major Learning Outcomes : Exposure to many industry level state of the art machine learning models and image processing techniques.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment is good. The company expectations will be high.

Academic courses relevant to the project : Digital Image Processing, Machine Learning and DSA

Name: VISHNUBHOTLA VENKATA KRISHNA HARI VALLABHA (2015B4A70559H)

Student Write-up

Short Summary of work done during PS-II : This Project report is about analysing and estimation of object homogeneous defocus map of an image and building automatic crop for export workflow using image processing and Machine learning techniques. In our first project, we first tried finding defocus map using basic image processing techniques such as edge

detection using Sobel operator and Laplacian operator continued with some advanced image processing techniques such as canny edge detector. Since plain edge detection techniques are not giving good results, we turned to machine learning models such as holistic edge detector. Edge detectors are giving good results when the defocused part of the image has very less variation in intensities. As we know that this will not be the case for every image, we want to find defocus map by finding the function/ kernel that is causing the defocus. And also, we are using some deep learning models (advanced models of CNNs) to find the defocus map. For the second project, we built a crop tool that automatically crops an image with the user given aspect ratio while maintaining the image composition and aesthetics. We combined a neural network architecture and an optimisation module to maintain the image composition and aesthetics. This tool is designed to combine with export workflow of LrClassic so that it would significantly decrease the time spent by user while exporting batches of images

Tool used (Development tools - H/w, S/w) : Jupyter Notebook, Lightroom, SQLite,Plotly

Objectives of the project : Object Homogeneous Defocus Map Estimation and Automatic Crop for Export Workflow

Major Learning Outcomes : I had to explore different architectures for the model to recognize the region of interest and experiment on it. There were a few mathematical challenges while optimizing the model to process the images.

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : DIP, ML

Name: PATHARE SHATRUNJAY SANJAY (2015B5A70321G)

Student Write-up

Short Summary of work done during PS-II : Worked on two different projects (together with one more intern) in the domain of Image Processing. The projects involved implementing two experimental features in Adobe's photo-editing android application called Adobe Lightroom. The ideas for the projects were suggested by the mentors, which we had to expand upon and implement.

Tool used (Development tools - H/w, S/w) : Android Studio, Git, Jupyter Notebooks

Objectives of the project : To create working implementations of the two features, alongwith the UI, which were initially just ideas and create working demos for them.

Major Learning Outcomes : Android Development, Machine Learning, Collaboration of work through Git

Details of Papers/patents : Obtained a patent for the first project.

Brief Description of working environment, expectations from the company : The work here is quite good if you are into things like Image Processing, Machine Learning. A lot of cutting-edge research is continuously going on in most of the teams with many people applying for patents each month.
P.S. A big plus if you use Adobe products in your day-to-day life as you'll get to see the research and effort that goes behind them.

Academic courses relevant to the project : Object Oriented Programming, Networking, Software Development for Portable Devices, Machine Learning courses

PS-II Station : Adobe Systems , Noida

Faculty

Name: Ritu Arora

Student

Name: UTKARSH AGRAWAL (2015B3A70500P)

Student Write-up

Short Summary of work done during PS-II : I was in the Media and Data Science Research Lab.My topic of research was NLP on Big Code.During the entire duration I was involved in two projects.First project was to improve the current Bug detection techniques,I made a neural network model to capture the semantics of code to predict,localize and repair errors that might appear during run-time.It was a challenging task with little or no data available.The approach I took was making synthetic bugs to accomplish the given task.The other task was to improve the embedding of code for various downstream tasks like code clone detection and code classification.

Tool used (Development tools - H/w, S/w) : Python, Pytorch and various other Machine learning utilities

Objectives of the project : Bug Prediction and Making context rich code embedding

Major Learning Outcomes : Exposure to research and deep learning

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Machine Learning, NNFl ,Compilers,DSA

PS-II Station : AlmaConnect , Gurgaon

Student

Name: ARUP KUMAR GHOSHAL (2016A1PS0505G)

Student Write-up

Short Summary of work done during PS-II : Handled operations and product management and went on to be a part of the growth story of the company.

Tool used (Development tools - H/w, S/w) : Used Amplitude, Google Analytics, Metabase dashboards, Freshdesk CRM and advanced Excel.

Objectives of the project : Understand the day to day working of the company and craft growth strategy and devise scalable planning.

Major Learning Outcomes : Learnt the day to day workings of a startup. Understood activities concerning investor sentiment, effective marketing/advertising campaigns, running operations frameworks and making sense out of user data to convert them into design solutions.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Absolutely great working environment. Incredibly Agile.

Academic courses relevant to the project : None

Name: SWETA PRAHARAJ (2016A5PS0474P)

Student Write-up

Short Summary of work done during PS-II : Worked as business deveelopement and operations intern. Managing daily tasks of the company, optimizing them so as to reach the end goal

Tool used (Development tools - H/w, S/w) : MS- Excel

Objectives of the project : To find a way to build engagement on the platform

Major Learning Outcomes : Work of a Business Developement and Operations person

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Name: KAUSTUBH NAMJOSHI (2016A8PS0406P)

Student Write-up

Short Summary of work done during PS-II : To develop and maintain the AlmaConnect website. The technologies used were Ruby on Rails for backend and AngularJS for front-end. ReactJS for building static websites for static websites.

Tool used (Development tools - H/w, S/w) : Sublime Text, Ruby terminal, JIRA

Objectives of the project : To develop and maintain the AlmaConnect website.

Major Learning Outcomes : Ruby on Rails development, AngularJS development, ruby scripting.

Name: CHIRAG GUPTA (2016ABPS0862P)

Student Write-up

Short Summary of work done during PS-II : Android and IOS application development using React native framework , I corrected the bugs in the app also including new features on demand from the management, in order to enhance the user experience

Tool used (Development tools - H/w, S/w) : React Native, Android Studio, XCode, Jira, Mattermost, JavaScript, C++, Java, Firebase

Objectives of the project : Objectives of the project were to increase the overall rating of the apps on both playstore and appStore so that both can come at top on searching

Major Learning Outcomes : I previously had developed apps with native android studio in java , with react native I had to learn javaScript which is very different from java, also I had to learn about iOS app development using xCode.

Details of Papers/patents : NONE

Brief Description of working environment, expectations from the company : Working evn is very great, everyone is very cooperative and understanding, company tries to inculcate good habits within us and timings are flexible but they expect the committed work to be done on time , if we are not able to do it they help us find our mistakes and correct them, overall my exp was great

Academic courses relevant to the project : NONE

PS-II Station : Amazon Development Center , Bangalore

Faculty

Name: Febin Aisha Vahab

Brief write-up on PS-II station : Students were given diverse projects on Machine Learning,Data Mining,NLP ,Alexa enhancements etc.Students should be well versed in Python,should have thorough conceptual knowledge and should have the ability to implement what they have learned.

Student

Name: THACKER PARTH ANIL (2015B3A70749G)

Student Write-up

Short Summary of work done during PS-II : Shopping Aids is a guide that helps customers in completing their shopping mission on Amazon. It achieves this by drawing customer's attention to important features in the shopping funnel at appropriate juncture by rendering an informational tool tip about the feature. Additionally Shopping Aids is being leveraged to improve discovery and adoption of new features.

There are many front-end and back-end components which are involved between the scheduling of these Shopping Aids and their final impression on the customers' end device (android app, iOS app and mWeb). This makes it difficult to track the progress of a tip to the customer. It happens the many times the tip is scheduled but due to some reason it not being shown to a customer. There was no infrastructure in place that lets us pin point the failure. Hence the problem statement was to provide a mechanism to monitor the progress of tips.

Tool used (Development tools - H/w, S/w) : AWS SQS
AWS S3
AWS DataPipeline
AWS SNS
AWS CloudFormation
AWS Lambda
AWS Athena
AWS Glue
AWS QuickSight

Objectives of the project : Build a system that could track the event cycle of the shopping aid being shown to the customer from the point of page hit to final impression.

Major Learning Outcomes : Write clean, maintainable, extensible code.
Learnt the AWS stack with CloudFormation.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Work environment is not restrictive in the way the there is no compulsory number of working hours as long as the deliverables are being met. The work environment is conducive to learning new technologies and inventing new and better ways to solve problems.

Academic courses relevant to the project : DSA
OOP
Database

Name: Ch Vishal (2015B5A70605H)

Student Write-up

Short Summary of work done during PS-II : I was in the Evaluation Platform team who own the platform that does all the risk/fraud evaluation across all of Amazon and its subsidiaries. I worked on two major projects, one which was migrating an old library to a new service and another was on-boarding a new client on the platform. The last task I was given was to write service tests for our system as a part of making the platform more robust.

Tool used (Development tools - H/w, S/w) : I was given a Macbook Pro 2017, a 35" widescreen monitor and standard mouse and keyboard. Software tools - IntelliJ Idea IDE, Lombok, Spring Framework, rest all are Amazon internal tools

Objectives of the project : Project 1 - Migration of an old library inside our platform into a service solely responsible for hosting that library. Project 2 - On-board a new client on the evaluation platform so that a wide variety of new business use cases can be supported. Project

Major Learning Outcomes : Industry standard Java Programming, Integration and Unit testing, Software development cycle, Design Patterns, Spring Framework, Agile Software Development, Official Communication, Working in uber tier teams

Details of Papers/patents :

Academic courses relevant to the project : Object Oriented Programming, Software Engineering, Operating Systems

Name: DIPAK AGRAWAL (2016A7PS0007G)

Student Write-up

Short Summary of work done during PS-II : FORTRESS Service is the fraud evaluation platform of CTPS. Its internal operations are broadly
categorized into Gather, Model, Ruleset and Action stages.
VariableComputationOrchestrationLibrary(VCOL) is being introduced inside FORTRESS to enable on-
boarding of multiple VCSs and it orchestrates variable computation calls based on the given varCategories
"namespace" in TEC Config. We want to put guardrails for the variable changes (added or removed) in
varCategories.

Tool used (Development tools - H/w, S/w) : Java Spring Framework, Scripting, User Experience

Objectives of the project : Implementing Guard Rails for Variables inside Transaction Risk Management System Evaluation Configuration & Improvements in Variable Comparison Tool for Variable Migrations

Major Learning Outcomes : During the course of these 5 months, there have been numerous things that I have
gained working as an SDE Intern for Amazon like Java Programming, SOLID Principles: These include Single Responsibility, Open-Closed Design, Liskov
Substitution, Spring Frame

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : OOP, Database Systems, DSA, Networks, Computer Architecture

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Name: ANIMESH ANAND . (2016A7PS0057H)

Student Write-up

Short Summary of work done during PS-II :
I worked with the Outbound Marketing Automation Team, which provides a common framework for email, push notifications for marketing purposes, to be used by teams across Amazon.The team also owned what content is selected for the consumer, and how to better consumer experience by sending more relevant messages.
In message generation pipeline, we previously had purchase filters which removed previously purchased asins(asin is unique identification id for each product) from the messages. These filters removed the exact purchased asins and their standard variations.
In this project, we tried to extend this feature by filtering out asins which are found to be similar to previously purchased asins. We defined a model which measure asin similarity based on asin-text description and images.The implementation was achieved by a spark job, written in

Scala which will take notification objects as input, compare them with purchase data for each customer for a fixed number of days and then pass the target-asins through text and image model and finally filter the notifications of target asins which are found to be similar.

Tool used (Development tools - H/w, S/w) : Apache Spark, AWS resources like EMR, S3, Lambda

Objectives of the project : Developing Purchase Halo component which filters notifications from message generation pipeline based on past purchases of customers.

Major Learning Outcomes : Big Data manipulation using Spark applications, using AWS resources like S3, EMR, Lambda

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Object Oriented Programming, Database Systems, Machine Learning

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PS-II Station : Amazon Development Center , Hyderabad

Faculty

Name: T Venkateswara Rao

Student

Name: HIMANSHU BADLANI . (2015B3A70548H)

Student Write-up

Short Summary of work done during PS-II : Making of a request editor tool which will help in making testing easier for those API's which require a similar kind of input. Accessibility of a webpage was also a project that i completed

Tool used (Development tools - H/w, S/w) : Scala, java, jsp, js, aws

Objectives of the project : Making Testing easier

Major Learning Outcomes : Scala, java, jsp, js, aws

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Object oriented programming and Database

Name: D AKASH REDDY (2016A7PS0069G)

Student Write-up

Short Summary of work done during PS-II : Frontend changes in the UI.Integration of service with a third-party tool for logs.Made 2 APIs and a Spring controller for the final project. Tests were written for all classes written.

Tool used (Development tools - H/w, S/w) : AWS services,Java,python,spring,google guice.

Objectives of the project : Mimic service flow to provide non production service API.

Major Learning Outcomes : Spring,dependency injection and testing.

Details of Papers/patents : Only High level and low level design wiki's .

Brief Description of working environment, expectations from the company : Great chance to learn a lot. Great chances of PPO if work is done with complete dedication and without any other commitments.. literally any other.Slightly hectic for the intern but not really for full-timers. Good company to work for . Growth is quick compared to other companies. Foreign opportunities open up after about 3 years within.

Academic courses relevant to the project : OOP(most imp(JAVA)),DSA,DBMS,DAA for SDE profile.

Name: MAYANK GUPTA . (2016A7PS0083H)

Student Write-up

Short Summary of work done during PS-II : Work was to write restful API to support the backend of the Policy Management System Team. Other than, it involved write code for client to Onboard them to use our product. Project also involved doing load testing to understand the limiting factor for the service and test the performace of the system under stressful conditions.

Tool used (Development tools - H/w, S/w) : JAX-RS Framework
Tps Generator
DynamoDB
Mockito
Junit
EC2 with Fargate (on aws)
API Gateway
VPC

Objectives of the project : Writing restful api, performance testing and onboarding of client to use Policy Management System

Major Learning Outcomes : Experience in Java, Python , Many services of Aws, importance of stress handling.

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : OBJECT ORIENTED PROGRAMMING,
COMPUTER NETWORKS,
OPERATING SYSTEM,
DBMS,
SOFTWARE ENGINEERING

PS-II Station : Amazon Professional Services , Bangalore

Faculty

Name: Preethi N G

Student

Name: SHUBHAM GARG (2016A7PS0028G)

Student Write-up

Short Summary of work done during PS-II : Security access to all the resources on aws cloud is managed through policies. Often these policies grant excess rights to the user which is a big security concern. My project aimed to create a service which automates the process of minimisation of access rights.

Second project was aimed at contributing to AWS open source libraries where we had to make automation documents which automate the remidiation of non- compliant resources in an organisation.

Third project was engagement in a migration of large scale real asset service provider's on-prem infrastructure to cloud.

Tool used (Development tools - H/w, S/w) : AWS SERVICES (IAM, S3, Lambda, Glue, Cloudformation, Aurora)

BOTO3

Python

Objectives of the project : Automation of minimisation of policies

Major Learning Outcomes : Cloud infrastructure and services

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Computer Networks

Name: SATYAJEET JENA (2016A7PS0054G)

Student Write-up

Short Summary of work done during PS-II : The work involved was targetted at developing automation tools for various use cases within AWS. The tools were developed by using native AWS services in tandem with external resources.

Tool used (Development tools - H/w, S/w) : AWS Services, Python

Objectives of the project : Develop Automation Tools using AWS services and in the process gain familiarity with AWS and it's services.

Major Learning Outcomes : Knowledge regarding AWS services,
Automation,
Tools for Relevant use cases

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Computer Programming, Data Structures and Algorithms

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Name: ARNAV SAILESH (2016A7PS0054P)

Student Write-up

Short Summary of work done during PS-II : Built an end-to-end system to generate Lex chatbots to answer questions about the information in a given set of web pages.
The system allows a user to input URLs of web pages or upload text documents into the system, the web pages are scraped for relevant text data which is normalised and preprocessed.
The system then generates QnA from the prepocessed text and indexes the QnA into an Elasticsearch domain.
Meanwhile, the system also builds and configures a Lex chatbot with corresponding intents and utterances to handle conversation with a user asking questions about all of the topics corresponding to the given web pages.The system provides a frontend for the user to chat with the chatbot.

When the user asks the chatbot a question on a topic, the most relevant answer to it is fetched from the Elasticsearch domain and presented to the user, who can choose to continue QnA operation for as long as he likes before exiting.

Tool used (Development tools - H/w, S/w) : AWS services - such as AWS Lambda, Amazon Lex, Amazon Elasticsearch, AWS S3,
SAM.
Natural Language Processing - spaCy library, python-boilerpipe

Objectives of the project : To build a dynamic chatbot system with Amazon Lex which can read and understand the unstructured data content from any given document set, create the intents and utterances programmatically, and answer user queries at application run-time using a natural

Major Learning Outcomes : Working on the project has given me a thorough understanding of several AWS services - such as AWS Lambda, Amazon Lex, Amazon Elasticsearch, AWS S3, IAM, Cognito, API Gateway, SAM - as well as a good practical understanding of natural language processing

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Information Retrieval

Name: ISHAN BHANUKA (2016A7PS0075P)

Student Write-up

Short Summary of work done during PS-II : The goal of the project was to help customers optimize their cost on AWS services. To accomplish this, I developed a data pipeline that can

process large amounts (potentially 30-40 GB) of data. The data pipeline took inputs from billing data, utilization metrics data and custom sources and combined them to give a holistic picture of usage vs cost. The pipeline also used an existing powerful search and visualization tool to help the customer explore the data graphically.

Tool used (Development tools - H/w, S/w) : AWS Glue, AWS S3, AWS Elasticsearch, AWS Lambda, Cloudformation, PySpark

Objectives of the project : Develop a data pipeline for optimizting cost

Major Learning Outcomes : - Learning the AWS infrastructure and how different services interact in the ecosystem
- Learning the best practices of designing serverless architectures
- Using big data tools
- Understanding real world problems faced by customers

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The work environment was comfortable and conducive to learning and exploration. My colleagues were experienced, knowledgeable and always available for help. The projects were well defined, with clear goals and end user applications. The company's expectation from interns was to learn in broad strokes and understand the culture of the company.

Academic courses relevant to the project : Information Retrieval, Data Structures and Algorithms, Computer Networks

PS-II Station : American Express - Big Data Labs (BDL) , Bangalore

Faculty

Student

Name: TARUN KUMAR (2016A7PS0005P)

Student Write-up

Short Summary of work done during PS-II : I did work related to Unstructured Document Analysis and Question Answering. Basically, for any NLP task on documents, the first step is to get some representation of it and apply task specific models on it. This representation should be structured (unlike raw documents) to be consumable for algorithms. So, my task was to convert documents into a structured format (jsons) preserving layout and content. i used different heuristics and instance segmentation for the same.

Next project was to perform Question Answering on Financial Statements. The problem statement was to answer questions based on a given paragraph. So, in this financial documents were first converted into jsons. Next, I generated a dataset of of questions and answers from FS and trained reading comprehension models on the same.

Tool used (Development tools - H/w, S/w) : H/w: Linux, Nvidia GPUs (single and cluster)
S/w: python, pytorch, tensorflow, keras JavaScript

Objectives of the project : Convert raw documents (Unstructured) into structured representations. Automate the task of answering questions posed by analysts in financial domain.

Major Learning Outcomes : Natural Language Processing, Natural Language Understanding, Computer Vision

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Machine Learning

Neural Networks and Fuzzy Logic

Information Retrieval

Data Mining

Name: ADITYA LAHIRI (2016A7PS0062G)

Student Write-up

Short Summary of work done during PS-II : Worked on adding features to a machine learning algorithm. Work required going through research papers and understanding new concepts and then applying them in the algorithm. Mix of software development and machine learning. Also worked on business aspect of explaining the features to business stakeholders in terms of business metrics and need for the features.

Tool used (Development tools - H/w, S/w) : Jira, Stash, Spark, Jupyter, C++, Python

Objectives of the project : Add new features to machine learning algorithm. Benchmark multiple algorithms. Research into the explainability of machine learning models

Major Learning Outcomes : Understanding a huge code base. Thinking of design before code. Reading and understanding multiple research papers. Working in a team. Using tools like stash,git. Understanding how to apply researched features to business problems.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Great working environment. Freedom to work at own timings. Responsibility comes with the freedom. Great supportive team to work with. Growing team. Lots to learn. And very friendly and knowledgeable team. Company also growing in Bangalore location. New projects keep coming in. Working in the latest and the most sought after fields in AI research.

Academic courses relevant to the project : Machine Learning, OOP, Data Science, Computer Programming, DSA

PS-II Station : American Express - Capabilities EDA , Gurgaon

Faculty

Name: Ashish Narang

Brief write-up on PS-II station : American Express, also known as Amex is an American multinational financial services corporation headquartered in New York. The organization is best known for its credit card, charge card, and traveller's cheque businesses. Amex offers internship in various business units including Amex Technologies, Amex Big data labs and Amex capabilities. Students are exposed to project assignments based on predictive modelling, Modernizing the internal risk platforms, automation by designing and implementing web applications. Technology stack includes MySql, Hive, python, PySpark, and React etc. Organizations prefer students who have done courses like Artificial Intelligence, Machine Learning, and Deep Learning and have good hands on experience on python. Additionally, they prefer interns who are good researchers, eager to learn new stuff, open to work on different technologies and have excellent communication skills.

Student

Name: ANIRUDH MEHRA (2016A7PS0033G)

Student Write-up

Short Summary of work done during PS-II : Full stack project involving information retrieval, and creating a tool that reduces the manual workload of analysts by automatically recognising patterns within a dataset

Tool used (Development tools - H/w, S/w) : Python3, Node JS, HTML, CSS, JavaScript

Objectives of the project : Full stack project involving information retrieval, and creating a tool that reduces the manual workload of analysts by automatically recognising patterns within a dataset

Major Learning Outcomes : Business terms and analytical terms and their practical meanings

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Data Mining

Name: A V S CHARAN PATNAIK . (2016A7PS0130H)

Student Write-up

Short Summary of work done during PS-II : Automation of Multiple process in the team. Firstly , the Non AD Measurement automation with master input file and final output appended to the input which is 9 times faster than the prior process. Next , automation of SAC process in python by converting all the process which were before done in three different platforms with and efficiency of 18 times faster process.

Tool used (Development tools - H/w, S/w) : SAS Enterprise, Python 3, MLS Studio,Pyspark,Pandas, Winscp, Putty and Bokeh

Objectives of the project : Automation of the process for error free and effective method

Major Learning Outcomes : Data Extraction,Manipulation and data visualization

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Database management systems and datascience

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PS-II Station : American Express - Machine Learning & Artificial Intelligence , Gurgaon

Faculty

Name: Ashish Narang

Brief write-up on PS-II station : American Express, also known as Amex is an American multinational financial services corporation headquartered in New York. The organization is best known for its credit card, charge card, and traveller's cheque businesses. Amex offers internship in various business units including Amex Technologies, Amex Big data labs and Amex capabilities. Students are exposed to project assignments based on predictive modelling, Modernizing the internal risk platforms, automation by designing and implementing web applications. Technology stack includes MySql, Hive, python, PySpark, and React etc. Organizations prefer students who have done courses like Artificial Intelligence, Machine Learning, and Deep Learning and have good hands on experience on python. Additionally, they prefer interns who are good researchers, eager to learn new stuff, open to work on different technologies and have excellent communication skills.

Student

Name: SRIJAN TRIVEDI . (2016A3PS0149H)

Student Write-up

Short Summary of work done during PS-II : Used various algorithms to further business level predictions on spend by customers on their credit carda. Classification and regression algorithms were used. Recursive and greedy approaches along with divide and cobquer for enhancing predictions based on e semble trees and boosting random forests.

Tool used (Development tools - H/w, S/w) : Python, hive, mls.

Objectives of the project : Predict incremental spend and average daily balance for small open to open us customers

Major Learning Outcomes : Machine learning and modelling

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Very great work environment. Treats interns at par with employees.

Academic courses relevant to the project : Machine learning, NNFL, DBMS, fundamentals of data science

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PS-II Station : American Express - Technology , Bangalore

Faculty

Name: Vimal SP

Student

Name: INALA VIVEK VAMSI . (2016AAPS0230H)

Student Write-up

Short Summary of work done during PS-II : Developed a staffing solution portal using One App, a React JS framework of Amex. Also had to develop and demonstrate an end to end designed Big data pipeline involving Spark Structured Streaming.

Tool used (Development tools - H/w, S/w) : React JS, Java , Python, Kafka, Spark, Hadoop, PostgreSQL, Couchbase

Objectives of the project : To develop a staffing solution portal and to demonstrate the end to end Big Data pipeline for real time transactional data analytics and visualisation.

Major Learning Outcomes : Got to learn about react JS and system design behind a portal of an organization. Got to learn comprehensively about Big Data ecosystem

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : CS F213, CS F211, CS F320

PS-II Station : American Express - Technology , Gurgaon

Faculty

Name: Ashish Narang

Brief write-up on PS-II station : American Express, also known as Amex is an American multinational financial services corporation headquartered in New York. The organization is best known for its credit card, charge card, and traveller's cheque businesses. Amex offers internship in various business units including Amex Technologies, Amex Big data labs and Amex capabilities. Students are exposed to project assignments based on predictive modelling, Modernizing the internal risk platforms, automation by designing and implementing web applications. Technology stack includes MySql, Hive, python, PySpark, and React etc. Organizations prefer students who have done courses like Artificial Intelligence, Machine Learning, and Deep Learning and have good hands on experience on python. Additionally, they prefer interns who are good researchers, eager to learn new stuff, open to work on different technologies and have excellent communication skills.

Student

Name: MEDINDRAO RAJA SEKHAR . (2016A7PS0019H)

Student Write-up

Short Summary of work done during PS-II : My first project is changing the companies invoice application code from .NET framework to AMEX framework which increases the UX of the web application.
My second project is creating a Content Management System which helps in maintaining the other applications static code which helps in changing static data using our service without re-deploying their code.

Tool used (Development tools - H/w, S/w) : React js, spring

Objectives of the project : Improving the companies UX of all the applications and making DEV-OPS to change their applications static data with ease.

Major Learning Outcomes : Ability to work with large codes, how to update code from one frame work to other.

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : Healthy environment filled with passionate people trying to solve the most challenging technical problems

Academic courses relevant to the project : None

Name: PIYUSH GARG (2016A7PS0035P)

Student Write-up

Short Summary of work done during PS-II : There were 2 projects assigned during this internship. First project was migrating a .NET application to NodeJs application. For this application I used ReactJs for front end development and Spring boot for backend development. The application is a self-service tool for suppliers to help them upload their invoices and get it processed by AMEX GSM operation team.
Second project was Language Resource Service.

Tool used (Development tools - H/w, S/w) : IntelliJ idea, Webstorm, Git, Jenkins, XLR, ECP.

Objectives of the project : To reduce the release time for an application and make it faster and simple.

Major Learning Outcomes : Learnt about the web development and what all things needs to be done for taking a product to production. I also understood about how deployment works.

Details of Papers/patents : Nil

Brief Description of working environment, expectations from the company : Working environment is pretty good here at Amex. Th projects are challenging, timings are flexible. All the team members are helpful. Environment is pretty interactive and to you can ask for help even outside the team, also you have the liberty to suggest your own ideas

Academic courses relevant to the project : DBS, Programming

PS-II Station : Apple India Pvt Limited , Hyderabad

Faculty

Name: T Venkateswara Rao

Student

Name: ROHAN JAIN (2015B4A70676H)

Student Write-up

Short Summary of work done during PS-II : The work involved web development and iOS development including both frontend and backend, involved technologies such as Angular , Node.JS , MongoDB , Swift , OpenCV
work involved experimenting with lot of technologies.

Tool used (Development tools - H/w, S/w) : CreateML, Postman , Xcode

Objectives of the project : The Objective of the project was to create a dashboard for tracking the status of various test cases for different labs across India and some other projects involved preparing prototypes for some iOS apps

Major Learning Outcomes : Software development life cycle , team work

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The work hours are flexible given that you complete the tasks , team is small and bonds well and everyone is ready to help , PPO depends on the openings and the team you are allotted

Academic courses relevant to the project : Data Structures and Algorithms , DBMS , OOPS , Machine Learning

PS-II Station : ARM Embedded Technologies Private Limited , Bangalore

Mentor

Name: Jagadeesh Ujja

Mentor comments: Akhilesh is assigned to develop/debug the power management features for ARM's RD-E1-Edge reference platform which incorporates "Neoverse E1 CPU".
ARM not only provides the processor architecture but also provides reference software.

"The Arm Neoverse E1 CPU delivers best-in-class throughput efficiency. It incorporates a new simultaneous multithreading (SMT) microarchitecture design. With SMT, the processor can execute two threads concurrently resulting in better aggregate throughput performance"

Akhilesh was initially guided to understand the ARM RD-E1 architecture and design specifications. Akhilesh excelled at this and he was able to understand those specifications. He is now onto developing/debugging the power management features.

He is quick learner, good team player and committed to work.
We are very happy with his progress in the work.

Name: Sreelalitha Rupanagudi

Mentor comments: Strengths

Very quick learner – Within a very short period of time he has understood our flow and is confidently able to make changes and test without any problems.

Meticulous and diligent – has a very good idea of what he is doing and what the end result should look like. He takes the pain to question and understand the task.

Tries to solve problems independently – He does ask for help when he is really stuck but mostly I have seen that he tries to solve all issues by himself. Even though he is very new to our flow, he is able to debug and solve issues.

Areas of improvement

None found. He should just continue doing what he is doing right now.

Name: Shreya Verma

Mentor comments: In the short time that I have worked with Rohit, he seems to be a smart, hard-working person who can quickly pick up on things. Being very new to not just ARM, but to the whole industry, he ramped up very well and did not need a lot of spoon-feeding. With little details given on his tasks, he puts in a lot of effort to understand things on his own and carry them out independently as far as possible.

He has successfully added support for Arch32 External Debugger to ARM A-Class CPU Directed Verification infrastructure. Currently he is working on a script that will be extracting the ARM System Registers R/W value from Machine Readable Specifications. Till now, I would say he is doing a great job!

Faculty

Name: Rekha. A

Brief write-up on PS-II station : The students are working in the area of verification/Validation, Reducing Cycle Time for Build Quality Feedback through Enhancement in Hardware & Software Infrastructure, Testing and implementation of Advance eXtensible Interface Weighted Random memory Delay Module, Designing a wrapper component for CPUs, Providing Power support and managment capability from the firmware level to kernel level for latest hyperthreaded CPU Architectures designs of ARM etc. The students were given training on Labview in National Instruments. Students worked on various tools and languages like C, python, Linux/UNIX, verilog, computer architecture, shell scripting. Awareness of scripting languages, programming concepts and computer Architecture are themareas the organisation is looking at for the various projects.

Name: ALUVALA SAI AKHILESH . (2016A3PS0281H)

Student Write-up

Short Summary of work done during PS-II : As a part of the Open source software group which is developing firmware for infrastructure designs in ARM, I had to work on Debugging the powering off of a multithreaded processor. i also had to develop a framework for message transfer for different entities in an SOC.

Tool used (Development tools - H/w, S/w) : C, ARM based Simulators, Gerrit

Objectives of the project : To turn of the cores with control and message passing between cores

Major Learning Outcomes : Firmware design

Details of Papers/patents : na

Brief Description of working environment, expectations from the company : The OSS group in ARM is a very friendly, motivated and flexible team with wide range of domains and to work on. The company expects you to be able to deliver the project by the release date and to be proactive in respect to the work you are undertaking. good communication is one of the main requirements for this team as its highly collaborative and technical.

Academic courses relevant to the project : computer architecture, microprocessor interfacing.

PS-II Station : ASA Industries , Noida

Faculty

Name: Nithin Tom Mathew

Brief write-up on PS-II station : ASA Noida engage in manufacturing parts for electrical application. They students were equipped with the tools as per the industry demands. More experience on simulation tools would be an added benefit.

Student

Name: BAJAJ SATYAJEET LAXMIKANT (2016ABPS0887P)

Student Write-up

Short Summary of work done during PS-II : I identified various waste in the various manufacturing processes at the company.I recommended installation of hydraulic clamps which will enable to successfully implement SMED.I I was instrumental in procurement of various high end machines for the company such as laser marking machine and bomb calorimeter.Which will help in tracking of the products and determine the best wooden pellets respectively.I also designed gauge design which will help the company in qualifying the product

Tool used (Development tools - H/w, S/w) : Large machine,AutoCAD,Solidworks,MS excel,Ms office

Objectives of the project : To improve efficiency of manufacturing processes, tracking of the company products.

Major Learning Outcomes :

Brief Description of working environment, expectations from the company :
Academic courses relevant to the project : Lean manufacturing,Manufacturing management,sustainable manufacturing

PS-II Station : Aurigo Software Technologies , Bangalore

Faculty

Name: Mohammad Saleem J Bagewadi

Student

Name: MADHAN T . (2015B5A30971H)

Student Write-up

Short Summary of work done during PS-II : I was part of one of the teams that directly work on the company's flagship product "Aurigo MasterWorks" and work was related to both bug fixes on priority and new feature implementations on the product. Every developer is assigned work that has equal parts of Front-end, Back-end, and business Logic. The work was based on Client Asks/Requirements and the company follows AGILE development model, so efficiency was focused upon. Great introduction to an actual IT work life where "How" to write good code is emphasized and valued!

Tool used (Development tools - H/w, S/w) : Visual Studio ,MicroSoft SQL Server ,Sequel Server Reporting Services.

Objectives of the project : Contribute to the development of AurigoMasterworks as part of the team student has been assigned to, and deliver a plethora of feature implementations and Bug fixes.

Major Learning Outcomes : Learning technologies and practices for becoming a competent full stack Developer

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Work environment is extremely positive and active. The company is scaling big and is actively pursuing (and on track to reach) its roadmap targets for the future. AGILE model of development has been adopted pushing for quick responses to client asks for bug/ feature implementations. The company understands that a new developer will take time to make way around the code base and actively encourages discussions regarding any doubts. The main expectation Aurigo is looking for is the student to be proactive in discussions and day to day work.

Academic courses relevant to the project : Object Oriented Programming. Data Base Management Systems,

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PS-II Station : Baldor Technologies Pvt Ltd , Mumbai

Faculty

Name: Ankur Pachauri

Brief write-up on PS-II station : Essential prerequisite courses required before working on the project
OOP, DBMS, Data Structures, Web development, operating systems, Deep Learning Specialization, NNFL, Machine Learning
Ruby on Rails, React, PostgreSQL, react JS, Elixir, Python, Google Cloud Platform, Google Datastore API, Pytorch/Tensorflow, Golang,
OOP, NNFL, OS, DSA, DBMS, CN
Open Source Coding, Image Processing

Student

Name: B TIRUMALA (2015B3A30572P)

Student Write-up

Short Summary of work done during PS-II : I got to build an entire React app by myself. It was a dashboard for agents to conduct video KYC (Know Your Customer) for their customers. I also got to build some parts of the backend that would support the whole video KYC process.

Tool used (Development tools - H/w, S/w) : React JS, Elixir

Objectives of the project : To build a Assisted Video KYC system

Major Learning Outcomes : - Creating front apps from scratch
- Using websockets for communication between server and client
- Using Rabbit MQ for message queueing

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : The working environment is excellent. You aren't treated as an intern and are given responsibilities just like a full-time employee which means you get to work on live projects and your inputs are taken just as seriously. The tech team is very young. So, it's easy to communicate while making the working environment fun as well. There is absolutely no hierarchy. You can approach anyone for help, and he/she would immediately lend you a hand. It also helps in the continuous exchange of knowledge.
In short, if you are looking for a place that gives you responsibilities and helps you learn a great deal, this is the right place for you.

Academic courses relevant to the project : OOP

Student Write-up

Short Summary of work done during PS-II : Worked on developing and improving the backends of APIs for verification and information extraction from government-issued identification cards such as aadhaar, pan, voter, etc. I also developed a new API for document perspective correction. We were treated more like a regular employee rather than interns, so we didn't have had any particular projects, but received a part of work, the whole team was working on.

Tool used (Development tools - H/w, S/w) : Google Cloud Platform, Python, Ruby, Elixir

Objectives of the project : Develop various API's for various business use cases.

Major Learning Outcomes : Network and System Design, Image Processing, RestClient, Project development and management

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The company has a startup culture and things move pretty fast here. So you'll get to experience and work on a lot of different things

Academic courses relevant to the project : OOP, OS, Image Processing

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PS-II Station : belong.co , Bangalore

Mentor

Name: Mr. Vinay Kumar (Project Manager)

Mentor comments: Students are interactive and knowledgeable. They are proactive in solving the tasks on time.

Faculty

Name: Uma Maheswari N .Natrajan

Brief write-up on PS-II station : All the three stations are software based organizations. The general expectations from stations are students should be from computer science background (Qubole) and if not, they should have done electives or acquired enough skill sets on Python, Java, Database, Spring, Hibernate etc

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PS-II Station : Bharat Forge Ltd , Pune

Faculty

Name: Naga V K Jasti

Student

Name: SHAMIN HIMANSHU SHETH . (2016A4PS0834H)

Student Write-up

Short Summary of work done during PS-II : New product development for the aerospace department including die design and metal flow simulation

Tool used (Development tools - H/w, S/w) :

Objectives of the project : New product development of Transmission shaft

Major Learning Outcomes : Forging processes, Die design, 3D Modelling

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The company alloted projects based on the students interest and passion. The team was very helpful and made the environment positive

Academic courses relevant to the project : Computer Aided Design

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PS-II Station : BIS Research Pvt. Ltd. - NonTech , Noida

Faculty

Name: Gaurav Nagpal

Student

Name: APOORV AGARWAL (2016A1PS0708G)

Student Write-up

Short Summary of work done during PS-II : As it is a market research firm, my work there was related to the same. My main project there was to track the vast ecosystem of plastics. This included identifying raw materials, bulk materials, intermediates, plastics and derivative plastics. I also assisted in some professional reports by profiling companies, which is a chapter in the company's reports.

Tool used (Development tools - H/w, S/w) : The work there required great use of MS Office, mainly Word and Excel.

Objectives of the project : The project aimed at tracking the plastics ecosystem and the companies manufacturing them. It also required segmenting the market according to intermediates, source and end- user markets.

Major Learning Outcomes : 1) Learned about Report Ethics
2) Acquintance with technical searching tools
3) Familiarity with primary and secondary research tools
4) Learned about various emerging technologies

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Working environment was good, especially in my team. There were activities conducted by HR team around all the festivals.
The company is a market research firm so you get to learn much about the market and how it is segmented and analyzed. You also get to learn about different emerging technologies floating in the market.

Academic courses relevant to the project : Principles of Management.

Name: JITENDRA SINGH (2016A2PS0802P)

Student Write-up

Short Summary of work done during PS-II : Worked in healthcare department for a month as research analyst and updated the dashboard and filled the input sheet used to validate secondary research.

Then was allotted in the sales team where i used to prepare DKIPs initially for my executives. After that i was allotted Global Liquid Hydrogen Market Report where i ran campaign on the report by cold calling and mailing, made a pipeline for my work to keep a track of the prospect. I had 15 running cases, 8 lost cases and 20 point drive cases under my belt. I have one confirm sale of USD 5,600 and expecting to close about USD 20,000.

Tool used (Development tools - H/w, S/w) : Advance Excel, Outlook, Albeit, powerpoint, Word, notepad.

Objectives of the project : To Generate Revenue under the sales team by selling a market intelligence report

Major Learning Outcomes : Learnt soft calling skills, draft mailing, sales negotiation, annual report analysis, and knowledge of different reports like Liquid Hydrogen, Blockchain in agriculture, Agri drones and robots and many other reports.

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : The working experience was great. You will have a balanced work experience here. I got a complete idea about running a startup, had a nice environment in the office. It was easy to interact with colleagues as well as senior executives. A specific project allotment gave me a major boost to commit a mistake and learn from them. The growth rate at BIS is good, as in this company if you do something good even the CEO of the company gets to know about and he will praise you by giving incentives and bonuses. BIS being a Bitsian startup provided me the liberty to change my field of work from research to sales. And if you don't expect a very PPO, then surely will be placed as BIS is an emerging tech startup and it has continued need of employees.

Academic courses relevant to the project : Not relevant to acads.

Student Write-up

Short Summary of work done during PS-II : My work was regarding research in emerging markets. I had to make a comprehensive database on the available data of Surgical Robotics which would help in doing Market Research and Estimation. It also included product mapping of products given by reputed companies. I also had to make transcripts of calls held by company's researchers. Patent Analysis is the field of AI, ML, Surgical Robotics of over 8000+ Patents

Tool used (Development tools - H/w, S/w) : Excel

Objectives of the project : Market Estimation of Surgical Robotics

Major Learning Outcomes : Work experience, refinery in secondary research, professional work life

Details of Papers/patents : Future of Robotics in Medical Surgeries

Brief Description of working environment, expectations from the company : My expectations where some more but it through time I got accustomed to the environment and the working environment was very friendly

Academic courses relevant to the project : It was somewhat related to pharmacy as it involved research in surgical aspect. I got to know various robots which are used to do surgeries or drug delivery.

PS-II Station : Blue Jeans Network India Pvt. Ltd. , Bangalore

Mentor

Name: Sanjay Behera

Mentor comments: It's been a great time working with Shivam. He was instrumental in solving some challenging tasks of our BlueJeans Events Platform. He was highly motivated and dedicated to the Task assigned to him.Overall, his performance in the tenure of Software Development Intern is quite impressive and I wish him a very good luck in his future endeavours.

Name: Keshav

Mentor comments: The team was moving or rewriting the project with the new technology stack. And Avinash had picked up the new project design very quickly and contributed in lot of key features.Re-write was a very heavy lifting task for the entire team, and Avinash had really contributed well sharing some of the loads of the team.
He had contributed across the project and the few key areas are Permission flows, app Join flows and localizations which are very well delivered by Avinash.
Overall Avinash is very sincere and dedicated in his work and quickly learns whatever is expected from him.

Faculty

Name: Akshaya G

Brief write-up on PS-II station : BlueJeans Network is a company that provides an interoperable cloud-based video conferencing service that connects participants across a wide range of devices and conferencing platforms. The interns are Junior Developer who are responsible for the following activites:
Design, application front-end features that are part of every user's daily experience
End-to-end implementation, including initial concept design, coding, unit testing and release to production
The expectations are
• Should be strong in Data structures, Algorithms and CS fundamentals.
• Should be very good in Problem Solving abilities.
•   Must have good working knowledge in any one of the programming Languages like Java/J2EE,C/C++,C#

Student

Name: DHULIPUDI AVINASH . (2016A7PS0113H)

Student Write-up

Short Summary of work done during PS-II : Our work is on a website, build to connect people with video call without installing any application using WebRTC. The main context our work deals with the rewrite of WMC code base which is in React and Backbone JS into UICore(named) with the use of Typescript, Mobx, Styled components and MVVM model for better usability and readability. we have worked on many feature implementations which includes smart meeting, CPF flow, and accessibility. I have also worked to fix many bugs during my process of being with WMC.

Tool used (Development tools - H/w, S/w) : Jenkins, Typescript, Mobx, AWS, Node React and BackBone Js, Webpack, Sockect.io and styled Components.

Objectives of the project : To Reduce the load time of a the website and make code base more readable.

Major Learning Outcomes : Typescript, Mobx, AWS, Node React and BackBone Js, Webpack, and styled Components, sockect.io

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : The Working Environment is very good, The team is so friendly as well.

Academic courses relevant to the project : Software engineering, OS and OOPS

Student Write-up

Short Summary of work done during PS-II : In this internship , i worked on the backend micro-services of the enterprise. Our team developed and improved the the various micro-services in the micro-service architecture of the BlueJeans Networks . My tasks included various JIRAs like adding audit logs to increase the events that are audited in the audit-microservice . I also wrote unit tests for update user password class using mockito and used DBUnit to mock the database for testing. I also improved some APIs to support new parameters which were not supported before by the API. I also made some api's open for public access after getting approval from the security team. My final task was to write a Database script in python to clean up the database which had some inconsistent entries resulting from a previous bug.

Tool used (Development tools - H/w, S/w) : JAVA , Jira, GIT, POSTMAN

Objectives of the project : Development And Improvement Of BlueJeans Backend Microservices

Major Learning Outcomes : I learned about how tasks are being alloted to employees using JIRA to the company employees and how an enterprise set time bound targets. I also learned cooperation among various teams that make an enterprise function.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment of the enterprise was really good. All the people were very approachable and willing to help. The interns were treated as full time employees and were made to be a part of code that is actually used by the enterprise .

Academic courses relevant to the project : Object Oriented Programming ,Computer Networks ,Database Management Systems

PS-II Station : Bundl Technologies Private Limited (Swiggy) - Nontech , Bangalore

Faculty

Name: Sandeep Kayastha

Student

Name: ADITI TAPARIA (2015B1A80769G)

Student Write-up

Short Summary of work done during PS-II : Improved growth on Swiggy's SUPER subscription program and stream lined processes to improve efficiency

Tool used (Development tools - H/w, S/w) : SQL, Advanced Excel

Objectives of the project : Improve growth on the Swiggy loyalty program

Major Learning Outcomes : Proficiency in SQL, Stakeholder Management, Understanding business economics

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Great work culture. The company works in a very structured manner and people stick to deadlines.

Academic courses relevant to the project : POM, POE, C programming

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Name: PARIKH CHIRAG HITESH (2015B1AB0520P)

Student Write-up

Short Summary of work done during PS-II : Worked on Hyperlocal Growth project to improve consumer perception of Swiggy by improving critical metrics. Also worked on building up new competition intelligence projects & working on regular project's run in the field. Worked on Profit-Loss analysis of area extension project

Tool used (Development tools - H/w, S/w) : Microsoft Power BI, Tableau, Mapbox, Excel, MySQL

Objectives of the project : Unlocking growth potential at hyperlocal level through identifying target zones.

Major Learning Outcomes : Improved ownership skills, stakeholder management, time management, presentation skills, analytical skills

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment in the company is really positive. The people are really helping and they give interns their time to learn and then work on the problems. Working in Swiggy has been a real learning experience with great intellectual minds around me.

Academic courses relevant to the project : POE, POM

Name: AKSHAY VENKATESH (2015B2A40632G)

Student Write-up

Short Summary of work done during PS-II : I worked in the Brand Factory at Swiggy, the chief of which was to manage a pilot for virtual brand creation in some cities and working on growth for existing Brands. The pilot involved talking the team through the whole process, conducting weekly review calls, having calls with partners and setting up the brands for success. The Growth aspect involved studying different accounts in terms of Visibility, Menu,Pricing, Discounting, Competition Bench-marking and Brand Positioning and finding the best fit for each account.

I also worked on revamping photo-shoot guidelines owing to my fondness for films, and I developed several data based models to improve brand performance.

I studied some brands for Access, and presented an altered target setting for performance as well.

Tool used (Development tools - H/w, S/w) : SQL, Excel, Photoshop, PowerPoint

Objectives of the project : - To manage a Pilot on Virtual Brand Creation in a few cities, to drive growth for existing brands, develop data-based models for betterment of business

Major Learning Outcomes : A comprehensive understanding of Data Analytics, Project Management, Photography studies, Pricing & Discounting Strategies, Budgeting, Expansion Plan formulation and Business Development

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The Brand Factory Team was a space that encouraged creativity, and allotted me a project suited to my learning and skill set. The organization is a very encouraging place to work in, with everyone being cordial and conversational. The leadership team are also very approachable, taking interest in making the environment as comfortable as possible for the interns. The organization encourages Ownership of work and a Bias for action.

The team's expectations are realistic, with minimal work outside office hours and no work on weekends. The social events are tremendously enjoyable, and the events are very welcoming.

All in all, Swiggy is a wonderful experience for someone just starting their career, and I would highly recommend it for PS2.

Academic courses relevant to the project : Principles of Management, Principles of Economics, Business Communication, Critical Analysis of Literature and Cinema, Optimization

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Name: PALAPARTHY ADITYA SAI SRIKANTH (2015B5A30693H)

Student Write-up

Short Summary of work done during PS-II : I worked in the New Supply - Ops division of Swiggy. My team took care of the daily operations of Swiggy Cloud kitchens. Most of my work involved analyzing the processes implemented in the kitchens and trying to come up with ways to improve these processes. Major projects I was given involved analyzing and trying to reduce the complaints by customers.

Tool used (Development tools - H/w, S/w) : Excel

Objectives of the project : Reduction of Missing complaints in cloud kitchens

Major Learning Outcomes : Operations management, Supply Chain Management, Analytical Skills, Problem structuring and Problem-solving skills

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The work environment is very good. Everyone around is approachable and are always ready to help you. You will be given real time projects even though you are an intern and the analysis you make will also be presented to higher ups in the organization. All teams know that you are from an engineering background, so they do not expect you to know the analysis techniques etc., but once you join you are expected to learn and develop the skills required quickly. Your mentors will spend time with you and make sure you understand the context i.e. why you need to do a

particular project and the skills needed for the project. They also teach you some analytical techniques that you need to finish your project.

Academic courses relevant to the project : Principles of Management

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Name: SHIVAM DUBEY (2016A1PS0515G)

Student Write-up

Short Summary of work done during PS-II : Worked from scratch on new product launch. Devised entire Go-To-Market plan for the product which involved supply strategy, marketing, product development and growth strategy. Conceptualized process flows for data ingestion and sized the available market opportunity for the product. Estimated and optimized targets for the launch and defined check and success metrics.

Tool used (Development tools - H/w, S/w) : Excel, SQL, R

Objectives of the project : To plan Go-To-Market Strategy of a product by working on different aspects of supply and growth strategy.

Major Learning Outcomes : Business Understanding, Product Management, Data Analytics

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Swiggy is one of the most consumer-friendly product available in the market. Environment is very enthusiastic and friendly. Appropriate mentorship is provided at every stage of the project. Team believed in high ownership of work and involved me in crucial decisions. Early visibility on skills required from company can be beneficial.

Academic courses relevant to the project : Principle of Economics, Business Analysis and Valuation

Name: THOLE DARPAN NARESH . (2016A1PS0708H)

Student Write-up

Short Summary of work done during PS-II : Understanding customer behavior and reactivating dormant customers through experiments. Changing delivery fee across cities to gain additional revenue.
Increasing the AOV of the platform.

Tool used (Development tools - H/w, S/w) : SQL, Power BI, Excel

Objectives of the project : To increase delivery fee revenue across the platform. Reactivating dormant customers back on platform. Increasing the AOV for the platform

Major Learning Outcomes : Strategy and growth; SQL; Designing experiments; Leading marketing campaigns; Data analysis;

Details of Papers/patents : -

Brief Description of working environment, expectations from the company :
Academic courses relevant to the project : Principles of economics, supply chain management

Name: ANKOLEKAR ADITYA HEMANT (2016A1PS0709G)

Student Write-up

Short Summary of work done during PS-II : Swiggy- Sides and Drinks is a service provided by the Value Added services team with a motive of enhancing the consumer experience and at the same time, provide a better value proposition to the restaurant. The project can be divided in

two parts: The Supply part focuses on setting up a B2B marketplace for food items such as Trail Mixes, Packaged Beverages, Artisanal Yoghurt, etc. The demand part deals with usage of menu digitisation properties of the Swiggy food App in order to create a demand for these food products.

Tool used (Development tools - H/w, S/w) : Snowflake, Excel, Google Sheets

Objectives of the project : Improve the Average Order Value of Swiggy Platform, Incremental Revenue Stream for Swiggy

Major Learning Outcomes : Learnt how to set up a business from end to end, Improved Professional Communication Skills, Product Management, Marketing

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : None

Name: PRIYESH KHANDELWAL (2016A1PS0781G)

Student Write-up

Short Summary of work done during PS-II : Work can be majorly categorized into two categories, first being catalog management and the other being business analytics. As for the first, the entire catalog management for the National Alliance Brands was taken care of during the entire course of the project. As a part of this, I have worked on Bundl's own catalog management system and learned a lot about the approvals required to start a restaurant in a particular area especially on an cloud kitchen platform & have tried to understand the Correct Menu Strategies, may it be in the form of the right food images or the right descriptions in the menu. As a business analytics employee, I worked for the entire duration of the internship on SQL and continuously delivered the partner with the required analysis to grow the business. I

was overall responsible to handle the growth of 5 brands and 74 outlets in general. During the course of my internship the orders for the brands grew by 56% while the GMV for the brand grew by 112%.

Tool used (Development tools - H/w, S/w) : SQL, Excel, Catalog

Objectives of the project : The project focused on growing the various National Alliance brands partially owned by Bundl Technologies Pvt. Limited by regular analysis of performance and providing an in-depth analysis of its own performance and performance of the platform.

Major Learning Outcomes : Menu Excellence, Catalog Management, Business Analytics, Consumer behavior analysis

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Swiggy has a friendly working environment. Managers and top management are easily approachable and willing to teach.

Academic courses relevant to the project : POE, POM, International Business, Operations Research

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Name: MOHAMMAD ZUBAIR (2016A2PS0209P)

Student Write-up

Short Summary of work done during PS-II : Swiggy GO is new initiative and was in testing phase when I joined the team. So helped in checking different metrics required to check whether the product is ready to launch. Found problems with the flow and worked with different teams to solve the issues. After launch tracked the growth of business by analyzing different metrics to ensure everything is working efficiently and customers have good experience. In operations, worked on different issues faced by delivery partners and different metrics affected

by it. For further growth of the business worked on categorization of the use cases and requirements of the specific features in product for merchants.

Tool used (Development tools - H/w, S/w) : SQL, Excel, Power-point

Objectives of the project : Launch and Growth of Swiggy GO

Major Learning Outcomes : Business Development and growth, Data Analytics, SQL, Project Management

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Supply Chain Management

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Name: VIBHAM SETHI . (2016A2PS0457H)

Student Write-up

Short Summary of work done during PS-II : I have done 2 projects during my internship. 1. My first project is ops based project I had closely worked with the Operations Team and learned how the Delivery Executive works, and the restaurant supply system works. 2. My second project is to improve the customer experience by giving awareness/visibility to various internal and external stakeholders my creating various dashboards related to customer experience.

Tool used (Development tools - H/w, S/w) : Advance Excel, Excel VBA, SQL and Power BI

Objectives of the project : To improve the Customer Experience using help of both Ops and Supply

Major Learning Outcomes : 1. Gained knowledge on advance excel.

2. Gained hands-on experience in writing SQL queries for data fetch and analysis of the procured data to solve real-time problems.

3. Developed automated reports using Excel VBA and python codes.

4. Developed enhanced

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The work culture of the company is good. The team is very helping in nature.

Academic courses relevant to the project : None

Name: SHREYANSH GUPTA . (2016A2PS0594H)

Student Write-up

Short Summary of work done during PS-II : P1:
To assess Pop performance in a city by quality of Pop supply at a polygon level using a score calculated based on the various attributes listed below
Cuisine Breadth
Cuisine Depth
Revenue Score
Quality (ratings, RDC, IGCC % of W&X category restaurants. Other metrics like packaging, hygiene, OOS, Ar2P(cuisine level benchmark) will be added later.)
P2:
To generate Pop acquisition list which
Can increase the quality of supply at a grid polygon level (2*2 grid polygons considered to ensure that supply density is high)
Can be easily read/interpreted by SMs for seamless acquisition

Tool used (Development tools - H/w, S/w) : Excel, SQL, ACCESS

Objectives of the project : To assess Pop performance in a city by quality of Pop supply at a polygon level

Major Learning Outcomes : The final view is restaurant oriented making it similar to BAU modus operandi for acquisitions leading to seamless execution on ground
The restaurants are prioritized based on the incremental benefit they can offer leading to better RoI of sales bandwidth

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : NONE

Name: K GOKUL . (2016A2PS0606H)

Student Write-up

Short Summary of work done during PS-II : 1. The work majorly focused on business development.
2. The newly launched business line called Swiggy GO had multiple verticals under it, namely, Business, Operations, Expansion and Growth
3. Under business, the major work was data based where one had to pull data and crunch numbers and help in understanding the leadership by giving timely insights and updates.
4. In Operations, it was focused on the delivery fleet and analysing the metrics that were dependent on them. Involved scrutinizing of the training modules and improving serviceability of the business line.
5. Growth involved understanding the customer requirements and positioning the product accordingly in terms of the pricing, offers, marketing initiatives etc
6. Visiting & Launching of new cities and ensuring all key customer experience and operational checkboxes were ticked before launching.

Tool used (Development tools - H/w, S/w) : SQL, Excel

Objectives of the project : Developing the new business line and supporting the various teams in achieving the key targets

Major Learning Outcomes : 1. Communicated effectively & worked with team members to figure out the possible ways and means to the situation and accordingly taking appropriate decision.
2.Proactively understanding the business nuances and applied it to meet the end objectives.

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Business Analysis, Principles of Economics & Management, Business communication etc

Name: VASU GUPTA (2016A3PS0153G)

Student Write-up

Short Summary of work done during PS-II : Swiggy's Value Added Service charter aims at ease of doing business for our partners across the restaurant life cycle by improving both Top line & Bottom-line. The aim is to help the partners expand to newer locations within a city or moving into a new city and augment their source of revenue. Thus, also providing an incremental source of income to Swiggy. The project involves working with different metrics, different departments (both internal and external), and different software, which gave an immense learning opportunity. Also, had the opportunity to work on various pilots/proof of concepts wherein the outcomes were two-fold: a) improve the reach of different brands b) improve restaurant partner's experience by increase their Average order value by Menu Augmentation. The work also involved coordination with Analytics and Finance team to work on

additional benefits for Sides and Drinks, along with measuring the impact of those benefits, and how they should be scaled up in future.

Tool used (Development tools - H/w, S/w) : Excel, SQL

Objectives of the project : To bridge the meal gap in restaurants menu and also generate an additional revenue stream for Swiggy.

Major Learning Outcomes : Management, Communication Skills.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The company has a good working environment in terms of learning experience. The people here are quite friendly and are ready to help you out to learn new things and are open to share information.
Academic courses relevant to the project : Principle of Economics, Business Analysis and Valuation.

Name: SARTHAK VIVEK JAIN (2016A4PS0161G)

Student Write-up

Short Summary of work done during PS-II : Working with the expansion team, our primary goal was to drive growth in 400+ cities across India. I worked with my manager and together we coordinated with city teams across India, with the relevant stakeholders and made use of various growth levers like breakfast initiation, long distance orders, discounting strategies, commission upsells, demand supply-gap study, launch support, etc. Along the course of the project, I learnt extensive data analysis, stakeholder management, and economics of the business.

Tool used (Development tools - H/w, S/w) : SQL, Excel

Objectives of the project : To drive growth in the newly launched cities using various growth levers, coordinating with various stakeholders and analysing data.

Major Learning Outcomes : Starting from launch support, to being an active member in spearheading the growth POD campaign, and undertaking various projects like breakfast initiation, discounting strategies, MoU digitization, etc., I have learnt a great deal about stakeholder management.

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : The working environment was quite electric. My manager and mentors were passionate and easy to approach, and eager to help and make me learn new things. The culture is quite action-driven and promoted taking ownership for your work, which is a very good approach.
If I convert and get a PPO I will be joining as a business associate.

Academic courses relevant to the project : Principles of Econimics

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Name: **NAYAR RISHABH JAYAPRASAD (2016A4PS0242G)**

Student Write-up

Short Summary of work done during PS-II : i) One Major Project that I was program managing the setting up a communication link between the Business and Operations team (for around 200cities) - here I conducted reviews between both the sides, took followups for actions and did additional analysis from the Operations front for various reasons. ii) Another major project that I was entrusted with was that of handling and managing the Delivery Fees of about 400 cities - this being a good lever for both growth and Unit Economics, so proceeding with caution while dealing with this tradeoff. Also creating strategies keeping this in mind and analyzing the impact caused once the strategy goes live.

Tool used (Development tools - H/w, S/w) : Excel, SQL

Objectives of the project : i) Setting up communication link so that things get resolved. ii) Increase in Monetization through Del Fee

Major Learning Outcomes : Stakeholder Management, Program Management, Strategy, Business Growth and tradeoff with Unit Economics

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : The working environment is very dynamic, the people here are full of energy and compassionate about their work which is a very motivating environment to be in.

Academic courses relevant to the project : PPC, SCM, POE (None of them had that much relevance)

Name: NIPUN NEIL (2016A4PS0411P)

Student Write-up

Short Summary of work done during PS-II : My work was majorly in the field of data science. I had to do analysis like - user segmentation analysis, cohort analysis, root cause analysis, etc on a daily level. The tools used were SQL (Snowflake), Microsoft Office and Google suite. Swiggy, Bangalore is the company's HQ, so for any schemes that was formulated and then rolled out PAN India basis my analysis had to monitored and kept track of. So telephonic conversations and applications like Slack, Hangouts & Meet are used on a daily basis. I was also allocated a Sales Project where other than data extraction, I also had to talk to restaurant owners either on phone call or by arranging a meeting. Under this, I converted 80+ partners for a promotional campaign hosted by Swiggy and Pepsi together. Graphics designing was occasionally required.

Tool used (Development tools - H/w, S/w) : Snowflake for SQL, Microsoft Office and Google Suite of apps

Objectives of the project : First Project - To use data analysis techniques to predict the return on investment (ROI), growth and new user acquisition for restaurants not participating on Ads for strategic planning based on segments.

Major Learning Outcomes : Data Analysis and Coding Skills, Communications skills needed for Sales Pitching, Leadership and Team-work skills, Time Management

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The work environment is very close to a start-up but with slightly better organized teams for distinct tasks. My team was very encouraging towards improvement of my coding and analytical skills in the beginning which was extensively used during the course of PS. Team parties and other social events are monthly organized which are fun to attend to.

Academic courses relevant to the project : Quality Control, Assurance and Reliability, Production, Plan & Control, Supply Chain Management

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Name: ARYAN GUPTA (2016A4PS0437P)

Student Write-up

Short Summary of work done during PS-II : I was working in the Swiggy Stores department. My work revolved around data crunching, root-cause analysis and a little bit of operations as well.
Projects:
1) Root cause analysis of Unfulfilled Orders
2) Demand Projection & Supply Planning

Tool used (Development tools - H/w, S/w) : SQL, Microsoft Excel

Objectives of the project : To improve customer experience by improving metrics like fulfillment rate, availability, delivery times, etc

Major Learning Outcomes : Learnt tools like SQL & Excel. Written communication skills, Problem Structuring, Project Management, Root Cause Analysis.

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Supply Chain Management, Principles of Management

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Name: M MOHITH (2016A4PS0662G)

Student Write-up

Short Summary of work done during PS-II : I am part of the Non-Delivery Use Case (NDU) team (New Division in Swiggy) from the inception, where our aim is to launch the Swiggy Food Court (SFC) product in areas such as Airports, Malls, Highways, Theaters etc. I was in touch with key stakeholders from major organizations like Bangalore International Airport Ltd, where I was project managing the complete pilot -
This included pitching our product to our client, coordinating with internal as well as client's teams and most importantly, I was a key stakeholder in all discussions to shape the project in the right way (From Stakeholder meetings to Internal Alignment meetings with COO Swiggy and even part of negotiations with both the party's Legal team, Marketing team etc.!

Tool used (Development tools - H/w, S/w) : Software:
Snowflake - For retrieving relevant data
PowerBI Dashboard - For retrieving relevant data

MapBox - Geo-mapping locations to retrieve data

Objectives of the project : Implement new product developed by our team to test our proposed use case - Enable Swiggy to be part of everyone's life by catering to their needs wherever they go (Malls, Airport, Highways, Theaters, etc)

Major Learning Outcomes : We validated the following points:

1. Verified that our product adds immense value to our customers (Queue less, Saves time etc)

2. One of a few solutions that is UE positive from day 1

3. If we scale up, we will surely be a lot more sustainable.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : I joined Swiggy as we are technically a Startup - Hence more exposure:

But the extent of trust and exposure that our teams have bestowed to an intern like me, allowing me to take my own decisions is absolutely amazing and I am very grateful for this!!

With respect to my project, deploying our new product Swiggy Food Court (SFC) at Bangalore International Airport -- Team allowed me to initiate a startup and watch it grow!!

Academic courses relevant to the project : Effective Public Speaking, Supply Chain Management, Cross Cultural Studies,

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Name: ADITYA MITTAL (2016A8PS0253G)

Student Write-up

Short Summary of work done during PS-II : There were largely three projects i was involved in during my internship

1) Efficiency- I had to build a model to find the efficiency of the discounts shown on the app.

2) Effectiveness- I had to develop a business which tells how effective are we in giving discounts on app which was further used to give targets to sales managers all over India.

Tool used (Development tools - H/w, S/w) : SQL,Excel,Python

Objectives of the project : To determine effectiveness and efficiency of discounts

Major Learning Outcomes : I learnt how to do data analysis over a large chunk of data and think in a quant funnel view to solve a business problem

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : The team was simply amazing. My team thoroughly believed in work hard.
Academic courses relevant to the project : POE

Name: SUNDARESAN M . (2016ABPS0616H)

Student Write-up

Short Summary of work done during PS-II : The business performance of the Private Brands had to be tracked on a day-to-day basis in order to be able to identify dips and critical signs before it is too late, and to take necessary corrective actions. I took upon the project to automate this entire exercise. The model automatically updates the pivot tables, runs the macros and converts the data into a consumable format.
The entire process has become much more efficient owing to the robustness of the model. The automation of this reporting process has led to devoting more time on other productive activities such as conducting deep dives and more thorough analysis.
When the leadership and management set the targets for the Private Brand kitchens, they do so at a month level. However, this is not a realistic target since it has not been broken down on a day-to-day level. There needed to be a constant phasing out of the targets that give the business teams at different cities an idea of day-to-day goals.

I built another model that slowly ramps up the targets such that by the end of the month, we achieve the stipulated targets. This was done by taking into account the rate of growth of the business in the previous month and the differential AOV and GMV during weekdays and weekends across each city.

Sizing of the breakfast and late-night slot was also done to understand the market potential.

Tool used (Development tools - H/w, S/w) : Softwares: Microsoft Excel, SQL, Snowflake tables

Objectives of the project : To build a robust model that provides a snapshot of the business performance through which dips and slumps in business can be quickly identified and corrective action be taken.

Major Learning Outcomes : This first stint in corporate has been marked by various learning outcomes, memories and experiences. Not only did I acquire the hard skills for completing the projects such as coding in SQL, mastering advanced MS Excel techniques and the different method

Details of Papers/patents : A policy paper on why the home-style brand 'homely' won't work in Coimbatore was published internally.

Brief Description of working environment, expectations from the company Academic courses relevant to the project : Technical Report Writing, Supply Chain Management, Project Appraisal

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Name: **PRATEEK JAIN (2016ABPS0892P)**

Student Write-up

Short Summary of work done during PS-II : The aim of REALM and EI2 project is to build a sustainable launch model for tier-4, tier-5 cities with a very low cost target of 40k and. The guardrails set for this project were launching the cities remotely without any Swiggy launch

manager, sales manager or field recruiter going to the city by exploiting online channels like Restaurant and Delivery Executive on-boarding using Whatsapp and e-mail. Another channel of on-boarding through tele-calling is employed to push the leads to communicate through Whatsapp. Total of 5 cities were launched. 12 more cities were project managed. The impact of platform level cancellation initiatives on 408 emerging India cities was analyzed.

Tool used (Development tools - H/w, S/w) : Snowflake, Excel

Objectives of the project : Creating a model with reduced launch cost and fixed operational cost owing to the low potential of the cities.

Major Learning Outcomes : Project Management, Resource Management

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Principles of Management

PS-II Station : Capillary Technologies - Testing Automation , Bangalore

Mentor

Name: Mr. Sathish (Tech Lead)

Mentor comments: Students are interactive and knowledgeable. They are proactive in solving the tasks on time.

Faculty

Name: Uma Maheswari N .Natrajan

Brief write-up on PS-II station : All the three stations are software based organizations. The general expectations from stations are students should be from computer science background (Qubole) and if not, they should have done electives or acquired enough skill sets on Python, Java, Database, Spring, Hibernate etc

Student

Name: ADITYA KHANDELWAL (2015B4A30464P)

Student Write-up

Short Summary of work done during PS-II : As a part of the campaigns team, the work mainly revolves around setting up and handling the work of the campaigns for its customers. I have been given the responsibility to take care of their email validation service, which is a crucial step of the team. The situation as of now, was that their were certain issues regarding the email validation and which in turn started affecting the customers. Hence, there was a need to take certain suitable measures to make this as accurate as possible.

The service follows a queue system of a definite batch size. After the analyses of the logs and the database, the problems were found out and the necessary code changes and add-ons were suggested so as to improve the accuracy of the service such as delaying a process for some time so that maximum retry of the service does not create a problem, handling blacklisted domains and so on. A function was to be implemented for just showing the stating the final status of the email without displaying other indicators involved.

In addition to the above project, I was given another project to work on in, wherein the objective of the project was to write a script so as to extract the data pertaining to the usage of product in terms of certain metrics. This project was started so as to help the product managers to draw enough insights from the product usage in different areas and take necessary actions to overcome nay difficulties. The data-source in these cases were MySQL and MongoDB. A python

script was written which incorporated the required MySQL/Mongo queries and the necessary connnections with the production and testing servers. The generated results were presented in the form of an excel sheet. Some of the KPIs were number of messages, number of campaigns and so on.

Tool used (Development tools - H/w, S/w) : Java,Python,MongoDB, MySQL, GitHub

Objectives of the project : 1) Improving the accuracy and correctness of email whitelisting service. 2)Automation of product usage span scoring system

Major Learning Outcomes : 1) Writing optimised MySQL queries
2) Testing the code on test/production server
3) Debugging and effective code writing
4)Data structures and Queuing mechanisms

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The company does expect you to take total ownership of your work . There isn't any documentation for every task that is being assigned and hence that is a challenge. They expect you to work hard and be quite pro-active which is quite a good learning experience.

Academic courses relevant to the project : Data Structure and Algorithms
Object Oriented Programming
Operating System

Name: HARSHA P DIXIT (2015B4A30583G)

Student Write-up

Short Summary of work done during PS-II : Enhancement of control panel in Anywhere Commerce Plus, e commerce platform built by Capillary. Client side and Server side design of web pages.

Tool used (Development tools - H/w, S/w) : VB.NET, ASP.NET, MySQL, Javascript, PHP

Objectives of the project : Enhancement of an existing product

Major Learning Outcomes : Database, MySQL, client side and server side web page design.

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : Relaxed environment, flexible work hours but company expects you to finish work on time

Academic courses relevant to the project : Object Oriented Programming, DBMS, DSA

PS-II Station : Central Electronics Engineering Research Institute , Pilani

Faculty

Name: Pawan Sharma

Brief write-up on PS-II station : CEERI, Pilani is a core electronics engineering research institute, that provides opportunities to students to work on live research projects in various domains of electronics engineering. A number of projects in the areas of deep learning, machine learning and IoT are available. Students need to have basic understanding of algorithms, programming languages like Python, data analytics and cloud computing, though the required study material is furnished by the mentors. Opportunities to go for MTech and PhD, JRF are also available.

PS-II Station : Central Leather Research Institute (CLRI) , Chennai

Faculty

Name: Glynn John

Student

Name: Akshay Anand (2014A1PS0665P)

Student Write-up

Short Summary of work done during PS-II : Worked on the film forming ability of Carrageenan and gelatin complexes.

Tool used (Development tools - H/w, S/w) : UV spectroscopy, Texture profile analyser, extraction of collagen protein

Objectives of the project : Film forming ability.

Major Learning Outcomes : Piqued interest in learning more about protein extraction, and proteiaceous complexes.

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Biochemical Engineering

PS-II Station : Century Rayon , Mumbai

Faculty

Name: Santosh Khandgave

Student

Name: RAJAT TEWARI (2014B1A10944G)

Student Write-up

Short Summary of work done during PS-II : The project involved optimization zinc extraction from waste sludge which has currently been dumped out in form of waste.The process is important not only for cost effective nature of mineral(zinc) but also to meet government norms of zinc concentration in waste effluent (5ppm).The various precipitation methods worked on include using Na2S,using bleach and HCl these methods were tested on lab scale and later most optimized method (use of Bleach and 11% (weight/volume) HCl) for used for large scale analysis of cost and process flow diagram was formed for the same.

Tool used (Development tools - H/w, S/w) : Laboratory Equipments like Flask , Weighing Balance,Filterate Paper
Large Drum to store sample,Boiler etc

Objectives of the project : Zinc Recovery From Waste Sludge

Major Learning Outcomes : Learnt Various methods about zinc recovery of which recovery through bleach and HCl (11% w/v) with sludge was most optimum method.

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Process Design and Principles,Engineering Chemistry

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Name: KAMAL GARG (2016A1PS0537G)

Student Write-up

Short Summary of work done during PS-II : Zinc is a very important component in the production of Viscose Rayon Yarn. It is primarily responsible for the strength and tenacity of the yarn by retarding the rate of regeneration of cellulose while spinning. Zinc is very poisonous but it is significant in the process of Rayon Production, hence it cannot be eliminated from the process. Thus, it also makes its way into the wastes of the rayon industry. Due to the poisonous of Zinc even in small quantities, Government norms prevent its release into the environment at concentrations higher than 5ppm and is removed at the ETP in the form of sludge. Zinc is a considerably costly metal. By recovering the Zinc before it reaches the ETP not only we can save a lot of money on zinc itself, but we can also save it on the waste disposal as well as the load on ETP and the sludge generated will also be reduced. When looked at various methods of Zinc recovery, most of them (Electrolysis, Liquid-Liquid extraction, etc.) come out to be costly. Keeping that in mind, we worked towards using readily available materials in the company for recovery using simple methods like double ion exchange using resins.

Tool used (Development tools - H/w, S/w) : Resins and other general Chemicals and lab equipments

Objectives of the project : Zinc Recovery

Major Learning Outcomes : 1. Understanding how to find conc. of Zn in a given sample
2. Understanding the working of a resin

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Very friendly and helpful

Academic courses relevant to the project : Separation Processes 1 and 2

Name: CHEMBETI KAVAL SAI ABHILASH . (2016A1PS0924H)

Student Write-up

Short Summary of work done during PS-II : Zinc is a significant component in the production of Viscose Rayon Yarn and cannot be eliminated from the process.Thus, it makes its way into the wastes of the industry. However, due to its poisonous nature, Government norms prevent its release into the environment at concentrations higher than 5 ppm. By recovering this Zinc before it reaches the ETP, not only we can save a lot of money on zinc itself, but we can also save it on the waste disposal as well as the load on ETP. Keeping that in mind, we worked towards using readily available materials in the company for recovery using simple methods like double ion exchange using resins.

Tool used (Development tools - H/w, S/w) : Resins, Laboratory Equipment and other chemicals required

Objectives of the project : The main objectives of the project is developing an industrially feasible process for the recovery of zinc from the waste effluent and also reducing the concentration of Zinc to less than 5ppm as suggested by government norms.

Major Learning Outcomes : 1. Understanding how to find the concentration of Zinc in a given sample
2. Understanding the capacity of resins to absorb Zinc

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Century Rayon creates a wonderful environment for learning both soft and hard skills. Their exemplary guidance, constant encouragement and careful monitoring through the internship are the main reasons which helped us in finishing the project. The main aim of Century Rayon is to develop a economical and industrially feasible process to recover the zinc which is being wasted thereby mitigating the losses of the company.

Academic courses relevant to the project : CEL-1, Chemical Processes and Calculations

PS-II Station : Cisco Systems (India) Pvt. Ltd - Software Engineering , Bangalore

Faculty

Name: Raja Vadhana P

Student

Name: LOHOGAONKAR ASHUTOSH JAIDEEP (2016A8PS0381G)

Student Write-up

Short Summary of work done during PS-II : Entire design flow of ASIC design and verification. Learning Formal Verification tools such as System Verilog, DVE Synopsys, UVM. Testing methods. Developing the first level of testing check for an RTL developed by Cisco. Covering border cases, negative cases, and normal cases. Exhaustive testing and debugging.

Tool used (Development tools - H/w, S/w) : System Verilog, DVE Synopsys, VNC Viewer,

Objectives of the project : Develop module based, then class based and eventually UVM based testbench for a sample RTL. Develop assertions file to serve as the first level of protocol checking for a design of DDR Controller.

Major Learning Outcomes : Learning how coding for hardware is different from normal software coding. How to do formal testing using UVM. Different constructs that apply only to hardware. How to do backtracking of bugs and different testing methods

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Analog Digital VLSI Design, Digital Design, VLSI Architecture

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PS-II Station : Cloudcherry Analytics Pvt Ltd , Bangalore

Faculty

Name: Akanksha Bharadwaj

Brief write-up on PS-II station : CloudCherry- It is taken over by CISCO now so from now on the requirements might come via CISCO. Till now their need was more around Java, .NET, AI/ML, Python. Groww- Java, Spring MVCframework. Sapient: Python, Java, AI/ML

Student

Student Write-up

Short Summary of work done during PS-II : As part of the product team, building and rendering views/charts for data science algorithms. Visualization built for N-Gram Analysis and Regression (with Confidence Interval), ANOVA (Analysis of Variance), T-Test. Building web apps using Angular. Building full stack web apps using Flask(Python) and Angular 8.

Tool used (Development tools - H/w, S/w) : Angular 8

Objectives of the project : Developing widgets for CloudCherry product

Major Learning Outcomes : Front-end webdevelopment (Angular), Backend microframework(Flask)

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Excellent working environment. Everyone from the mentor you are assigned, to the manager you report to are super helpful and make you feel very comfortable at work place.

Academic courses relevant to the project : OOPS

PS-II Station : Cogoport - Non Tech , Mumbai

Faculty

Name: Gaurav Nagpal

Student

Name: NIHARIKA PRASHANT MORE (2015A2PS0802P)

Student Write-up

Short Summary of work done during PS-II : I worked with Platform team,

1. getting shipping schedules on various shipping line website and upload it to cogoport portal.

2. Seaintel data accuracy checking.

3. Acquiring Data of various companies, along with their IEC and cleaning files to be made ready to upload for data enrichment process.

4. Write ad-hoc queries in mongodb to extract data.

5. Collecting insights for various import export commodities.

Tool used (Development tools - H/w, S/w) : Ms Excel, Jupyter notebook, Canva

Objectives of the project : To maximize revenue of cogoport by acquiring maximum shipping schedules and rates to be displayed on cogoport website.

Major Learning Outcomes : Python Coding, aggregate IECs for uploading at data enrichment

Details of Papers/patents : -

Brief Description of working environment, expectations from the company :
Academic courses relevant to the project : Data structures and algorithms.

Name: PRITHVIRAJ CHUMBLE (2015B1A10755G)

Student Write-up

Short Summary of work done during PS-II : PART OF THE SUPPLY TEAM WHICH DEALT MAINLY WITH LANDSIDE EXPANSION OF COGOPORT. THIS INCLUDED

INCORPORATING TRUCKING LOGISTICS FEATURE ONTO THE PLATFORM. DEALTH WITH STRATEGIC SERVICE PARTNERS AND FREIGHTF FORWARDERS AND TOOK CARE OF SHIPMENT EXECUTION

Tool used (Development tools - H/w, S/w) : NONE

Objectives of the project : TO ONBOARD TRUCKING PARTNERS AND TAKE CARE OF SHIPMENT EXECUTION BEFORE MIGRATION ONTO THE NEW VERSION OF COGOPORT

Major Learning Outcomes : GOT A DETAILED UNDERSTANDING OF THE OPERATION PROCESSES INVOLVED WITH CARRYING OUT A SHIPMENT AS WELL AS THE SKILLS REQUIRED TO DEAL WITH SUPPLIERS

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : WORKING ENVIRONMENT WAS GOOD TO BE IN.
Academic courses relevant to the project : SUPPLY CHAIN MANAGEMENT

Name: AISHIT JAIN (2016A1PS0768P)

Student Write-up

Short Summary of work done during PS-II : Was a part of the marketing team at Cogoport. Handled various campaigns in the domain of SEO, Email Marketing, Advertisements, PR, Internal communications etc.

Tool used (Development tools - H/w, S/w) : Moz, KeywordResearch, Autopilot, SQL, Excel, Mailchimp

Objectives of the project : To improve the brand awareness of Cogoport

Major Learning Outcomes : Got to know a lot about how marketing in an organization takes places.

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Market Research, Business Communication

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Name: ARJUN GUPTA (2016A2PS0739P)

Student Write-up

Short Summary of work done during PS-II : At Cogoport, I was working as a Demand Consultant. My role included contacting various exporters and importers based in Mumbai, setting up a meeting with them and finally convincing them to come over to Cogoport Online Platform for carrying out their export/import in the meeting.Once they agree I had to look after their shipments and guide them in the paperwork required henceforth.

Tool used (Development tools - H/w, S/w) : CRM,Excel

Objectives of the project : To identify market sectors and segments which had high demand in that period of time.

Major Learning Outcomes : Complete working of foreign trade , development of soft skills

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : NA

PS-II Station : Cogoport - Tech , Mumbai

Faculty

Name: Ankur Pachauri

Brief write-up on PS-II station : Essential prerequisite courses required before working on the project
OOP, Operating Systems, Software development basics, Computer Networks
Ruby on rails, react, PostgreSQL
DBMS, OOP,OS
Software Development for portable devices

PS-II Station : Credit Suisse - Credit Analytics , Mumbai

Faculty

Name: Bandi Venkata Prasad

Student

Name: APOORV RAJ SINGH (2015B3A40536P)

Student Write-up

Short Summary of work done during PS-II : I was a part of the Firm Wide Stress Testing team which is responsible for developing and enhancing current stress testing framework and methodology that complies with model governance framework for Investment Banking and Private Banking portfolios. The team analyzes the overall counterparty credit risk / exposure of the bank for various scenarios for CCAR, FINMA, PRA and reports US, Swiss and UK regulators. I worked on the stressed Probability of Default (PD) and stressed Loss Given Default (LGD) Models used in calculating the expected losses for the bank in stressed economic periods.

Tool used (Development tools - H/w, S/w) : RStudio, Excel with VBA

Objectives of the project : irm Wide Stress Testing using Stressed Probability of Default Model and Loss Given Default (LGD) Model

Major Learning Outcomes : Nuances of statistical modeling, model testing, credit data analytics

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment in Credit Suisse overall has been really nice and amicable. Everyone is very friendly. You are expected to complete the work you are allotted, on time; either by coming early and going early or by coming late and staying till late. Each colleague would be willing to go out of the way and help you if you are stuck with something.

Academic courses relevant to the project : Prob stats, Mathematical and statistical methods, Econometrics, Advanced Econometrics

PS-II Station : Credit Suisse - Equity Research , Mumbai

Faculty

Name: Bandi Venkata Prasad

Student

Name: NEHA (2015B3A10646P)

Student Write-up

Short Summary of work done during PS-II : Major internship project was MSCI India Index Additions and deletions which is major part of market liquidity. Some other really good projects I worked on are Mutual Funds and ETFs data tracking which I will be covering in reports further. Two small VBA Projects to automate few excel tasks. And some small tasks to observe various economic aspects and how they affect stock market.

Tool used (Development tools - H/w, S/w) : Ms Excel, VBA, Bloomberg

Objectives of the project : To understand and predict the movement of stocks with various incidents happening in the market. To be ahead of the curve.

Major Learning Outcomes : VBA, Bloomberg software, working environment of a trading floor, how to think in direction to get benefit from different situations.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Just Wow! Credit suisse is really a great to firm to work. I was lucky enough to get the exposure of real time

trading and how IPO, QIP or various things really process. People are really nice, can approach anyone for even small things.

Academic courses relevant to the project : DRM, SAPM

Name: MEHTA MANAN MANOJ (2015B3A80546P)

Student Write-up

Short Summary of work done during PS-II : Analysis and investor presentation preparation of companies which have been selected according to their potential growth. The first step involves collection of data. This is done via the help of the Draft Red Herring Proposal
(DRHP) and the annual reports. The three financial statements which are the Balance Sheet, the Profit and Loss statement and the Statement of Cash Flows are collected from these reports. From there, they are meticulously recorded in an excel sheet. The next step involves building a financial model. By linking the various accounts in the aforementioned financial statements which are on separate excel sheets, we create a model which keeps the Balance Sheet properly balanced regardless of any change of accounts which may take place in any of the financial statements.

Tool used (Development tools - H/w, S/w) : Microsoft Excel, PowerPoint

Objectives of the project : To develop financial reports regarding companies.

Major Learning Outcomes : 1) Linking financial statements together 2) Understanding the complexities and nuances in financial analysis 3) Building and utilizing financial models for analysis

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Fundamentals of Finance, Financial Management etc.

PS-II Station : Credit Suisse - Global Market Risk Management , Mumbai

Faculty

Name: Bandi Venkata Prasad

Student

Name: KHUSHALI SARAF . (2015B2A10807H)

Student Write-up

Short Summary of work done during PS-II : Automated the steps in the model involving machine learning and statistics to chose a final model to project VaR/SVaR forward nine quarters. This is done due to regulatory purposes to forecast amount of capital required for the company to keep aside and do well even during stress periods.

Tool used (Development tools - H/w, S/w) : Macros, VBA, Python, R, Excel

Objectives of the project : To automate the steps involved in running a model to project VaR/SVaR

Major Learning Outcomes : Learned about finance in real life and how corporate banks work. Improved upon my coding skills and implementation of my learnings in practical life.

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : DRM, FRAM, FM, FOFA

PS-II Station : Credit Suisse - Prime Services , Mumbai

Faculty

Name: Bandi Venkata Prasad

Student

Name: RENIKINDHI SRIKAR . (2015B3A40558H)

Student Write-up

Short Summary of work done during PS-II : Was a part of Client and Business Analytics team. Work included making daily and weekly reports about the various aspects of the business the clients do with Credit Suisse. The entire analysis was in a broader perspective like revenues, balances and few other metrics.

Tool used (Development tools - H/w, S/w) : Excel, VBA and Tableau

Objectives of the project :

Major Learning Outcomes : Understanding about Prime Brokerage business and how revenues are generated for Credit Suisse.

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : DRM

PS-II Station : Credit Suisse - Risk & Finance Data Analytics, Reporting , Mumbai

Faculty

Name: Bandi Venkata Prasad

Student

Name: PRIYANSHA GUPTA (2016A5PS0652P)

Student Write-up

Short Summary of work done during PS-II : My work revolved around stress testing. It is a computer-simulated technique to analyze how banks and investment portfolios fare in drastic economic scenarios. It helps gauge investment risk and the adequacy of assets, as well as to help evaluate internal processes and controls. We were required to determine drivers of the move and validate them so that the hedging strategies can be determined accordingly.

Tool used (Development tools - H/w, S/w) : Qlik Sense, Excel, VBA, SQL

Objectives of the project : 1. To monitor trading desk limits 2. To perform impact analysis on bank's assets. 3. To create a dashboard on Qlik Sense for quick and in-depth risk monitoring

Major Learning Outcomes : Credit and Market Risk Management, Qlik sense

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Derivatives and Risk Management, Financial Engineering

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PS-II Station : Credit Suisse - Risk & Finance Data Analytics, Reporting , Pune

Faculty

Name: Bandi Venkata Prasad

Student

Name: AVIRAG VERMA . (2016A2PS0506H)

Student Write-up

Short Summary of work done during PS-II : I was a part of the RFDAR(Risk and Finance Data Analytics and Reporting) department of the Chief Risk Office in Pune. I was a part of the stress testing team in RFDAR, our primary work was to measure and manage credit risk of CS

against various counterparties for pre-defined adverse scenarios. This was done by applying shocks defined for these scenarios to the baseline mark to market values and assessing the movements for limit breaches in exposure limits. The stressed mark to market values are adjusted for regulatory reporting.

Tool used (Development tools - H/w, S/w) : Excel , SQL

Objectives of the project : Credit risk analysis of products for regulatory reporting

Major Learning Outcomes : Conceptual understanding of valuation of financial instruments, valuation of collateral, stress testing methodologies.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Excellent working environment with emphasis on teamwork and open dialogue. Expect risk measurement projects for various financial products.

Academic courses relevant to the project : Derivatives and Risk Management, Financial Management, Security Analysis and Portfolio Management

PS-II Station : Credit Suisse- Finance Change , Pune

Faculty

Name: Bandi Venkata Prasad

Student

Name: ABHINAV SHARMA (2016A4PS0376P)

Student Write-up

Short Summary of work done during PS-II : Reporting related UATs performed , basically it's finding failures and get it fixed with IT team

Tool used (Development tools - H/w, S/w) : Axiom , Oracle business intelligence , excel , jupyter , spyder

Objectives of the project : Pillar 3 report

Major Learning Outcomes : BASEL reporting

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : SAPM , fundafin and DRM

PS-II Station : DataM Intelligene 4Market research , Hyderabad

Faculty

Name: Anjani Srikanth Koka

Student

Name: VENKUMAHANTI CHANDRAHAAS . (2015A7PS0010H)

Student Write-up

Short Summary of work done during PS-II : Taking leads has been my task everyday a list of 40 companies,1 market and sale of the market which is none of other than taking conversion has been my work during my PS2 .

Tool used (Development tools - H/w, S/w) : Mail tester,hunter,zero bounce

Objectives of the project : To bring main aspects of a business ,to bring discussion opinion is the main objective

Major Learning Outcomes : The main outcome to enhance competitivenessacross different geographies in their respective industry domain.

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : The environment at my company is quite encouraging and quite good.

Academic courses relevant to the project : -

PS-II Station : DBOI - Business Finance , Mumbai

Faculty

Name: Krishnamurthy Bindumadhavan

Student

Name: ANURAG SHARMA (2016A3PS0161P)

Student Write-up

Short Summary of work done during PS-II : My daily task was to report front office P&L and risk for the portfolios assigned to me on T+1 basis. I also had to ensure that each and every trade has been booked correctly and if not, then rectify it by myself or get it rectified by liaising it with trader/ trader assistant / other teams involved. Apart from that, we also had to resolve cash breaks in the portfolios assigned to us.

Tool used (Development tools - H/w, S/w) : Internal Softwares of the company

Objectives of the project : PnL & Risk Reporting

Major Learning Outcomes : 1. PnL & Risk reporting
2. Financial Products Knowledge

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Working environment is really good. Everybody help each other whenever needs to be.

Academic courses relevant to the project : DRM

PS-II Station : DBOI - Market Risk Analysis & Control , Mumbai

Faculty

Name: **Krishnamurthy Bindumadhavan**

Student

Name: **ARPAN MAITRA (2016A1PS0726P)**

Student Write-up

Short Summary of work done during PS-II : I worked for the Credit Risk team in Risk Methodology department. I worked on producing monthly and quarterly reports to analyse the probability of default of clients and the distribution of clients across rating clients. I also worked on PD model development where we would choose the most suitable variables and apply them to determine the best fit model for calculating the probability of default of a client.

Tool used (Development tools - H/w, S/w) : SAS, MS EXCEL, POWERPOINT

Objectives of the project : Determine PD of clients, examine functioning and validity of development model, develop best fit PD model, generate monthly/quarterly models

Major Learning Outcomes : Learnt to work on SAS and advanced Excel. I also got a lot of exposure in terms of interaction with stake holders and senior executives. I got to present three reports in front of senior executives in Frankfurt and Berlin over video conference which was a

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment was great. The employees there are very kind and supportive in their behaviour. The transition from academics to a corporate environment is tough but exciting. There is a greater sense of routine and discipline is a highly appreciated trait. The employees also involved us in fun and sport activities after work hours.

Academic courses relevant to the project : None as courses taught were relevant for market risk, while my work was in the domain of credit risk.

Name: ISHITA SRIVASTAVA (2016A8PS0236G)

Student Write-up

Short Summary of work done during PS-II : Assigned to Run The Bank - Change team. The team had periodic and non-periodic projects. I was the report owner of Stress Period Selection testing. Advanced Excel helps. Coding allowed me to automate some processes.

Tool used (Development tools - H/w, S/w) : Excel, R, SQL Dev

Objectives of the project : Stress Period Selection

Major Learning Outcomes : Project Management, Advanced Excel, Risk Management, Problem Solving and Stakeholder management

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : -

Academic courses relevant to the project : Derivatives and Risk Management

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PS-II Station : Dell R&D , Bangalore

Faculty

Name: H Viswanathan

Student

Name: SANDHYABIKSHAM PREETHI SHARMA (2016A7PS0001H)

Student Write-up

Short Summary of work done during PS-II : Build a shared component Remote File Explorer which Popup the explorer window (Modal-2) on top of parent component (Modal-1) to browse server-side directory structure in path specified on the cluster. On-click of a button in modal-1 popup the explorer window (modal-2) which contains fields viz search box, space to display the directories, back button, cancel and submit button and a text-box to display the path the selected. When a user specifies the path and click on submit button the component must return all the directories and files in that path, and this repeats even for if we click a child directory it will list all the sub directories and files in that path. Once we get the data from the cluster, we need to modify the data that is received. So that user can fetch any file stored in the cluster.And the implementation of functionalities specified above accordingly.

Tool used (Development tools - H/w, S/w) : Redux-React Java Script,VM ware.

Objectives of the project : The Objective of this project is built (Remote File browse Explorer) on-click of the button a modal will popup which contain fields like search box, space to display the directories, back button, cancel and submit button and a text-box to display the path

Major Learning Outcomes : Web UI technology React-Redux java script,GitHub.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : I was assigned a mentor for my work .he was always there for doubts help me in review meetings.It is good working here.They expected to complete my work with in the specified time .

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Academic courses relevant to the project : None

Name: VARANASI ROSHINI (2016A7PS0007P)

Student Write-up

Short Summary of work done during PS-II : Developed an intranet web application that displays data taken from a remote server by establishing a ssh connection to the remote server. Consists of two web pages. One page is a kind of putty simulation where you can execute a single or list (file input) of commands. Second page displays a tree structure of objects taken from the server. Displaying the binary and readable format of the selected object's content.

Tool used (Development tools - H/w, S/w) : Django, putty

Objectives of the project : They use command line interface like console or putty . The website (my project) replaces it and makes their work easier .

Major Learning Outcomes : Full stack web developmemt

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : None

Name: BANDARU HEMANTH SAI KRISHNA (2016A7PS0032G)

Student Write-up

Short Summary of work done during PS-II : Translation of JSON data to Binray Encoded Json using dictionaries.

Tool used (Development tools - H/w, S/w) : Json , PLDM

Objectives of the project : Understanding the schemas, finding the dictionaries for the given schema, encoding and decoding of Dictionaries

Major Learning Outcomes : Pldm for redfish

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : OOP DSA DAA

PS-II Station : Dell R&D , Bangalore

Faculty

Name: H Viswanathan

Student

Name: SANDU HERSHAL JITENDRA (2016A7PS0668G)

Student Write-up

Short Summary of work done during PS-II : I am working on a data simulation project where we simulate the data generated by Dell's Isilon Large Scale Storage clusters. The deliverable was to find out Isilon cluster size feasibility. I have designed algorithms that create millions of

database rows of data for several thousand nodes across 50+ clusters. I also worked on dashboards that could handle displaying data at this scale and engineered database solutions that could handle the dataset. Further on, I also worked with networking technology and cluster simulators to further verify if the proposal was achievable. I am currently working on virtual client servers and setting them up so that they will autonomously act like real clients and read/write data on the Isilon cluster, simulating an actual client load. I used Python, InfluxDB, and Grafana for this alongside several Dell in house technologies.

Tool used (Development tools - H/w, S/w) : Python, Grafana, influxDB, timescaleDB, Certain Dell Technologies, Docker

Objectives of the project : Implement data generator, test influx vs timescale, simulate clusters

Major Learning Outcomes : Learnt about Dell EMC Isilon product technologies, gained deep understanding of large scale database management

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Very good working environment. all the colleagues and mangers are very nice, helpful people. They were always willing to help out and take the time to teach us what we needed to know. The company expected us to complete our deliverables on time, they understood our capabilities and expected us to learn what was needed to complete our task.

Academic courses relevant to the project : Database Management, OOP, Data structures and algorithms

PS-II Station : Dell R&D , Bangalore

Faculty

Name: H Viswanathan

Student

Name: KARTHIK NAGARAJ . (2016A7PS0804H)

Student Write-up

Short Summary of work done during PS-II : 1) Modifying an existing full stack of a hardware specific web service to function without the device and using this simulation to test the front end. 2)Web security testing on a RESTful web service using an internal framework using Python.

Tool used (Development tools - H/w, S/w) : Python (requests, curl, http.server), HTML + CSS, Javascript, Angularjs, C++.

Objectives of the project : Dell uses a RESTful web service to allow users to interact and control a particular product of theirs. The objective of the project was to take this existing service and modify it such that the backend draws data from test inputs.

Major Learning Outcomes : Full stack web development and web security testing.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Office culture is welcoming and relaxed. Employees are communicative and willing to help. Goals and deadlines are kept relatively broad, allowing you to take your own approach as long as you're on time and keep updating your mentor.

Academic courses relevant to the project : Computer Networks

PS-II Station : Divgi TorqTransfer Systems Pvt. Ltd. - Bhosari , Pune

Faculty

Name: Ravi S Reosekar

Student

Name: KARTIKEYA KHATRI (2016ABPS0860P)

Student Write-up

Short Summary of work done during PS-II : 1) Preparing Tooling Budget of LRP++ projects- UAZ 6 Speed MT, E Gear Drive & DCT: The project aimed to find out the total cost of tools required to prepare a budget for the LRP++ projects, especially E-Gear Drive & DCT.
2) Cycle Time Calculation of Gear Grinding: The project aimed to provide the formula for calculating the cycle time of the grinding process, using the provided real time data recordings and also improve the productivity of the process.
3) Capacity Planning of machines involved in different machining processes: The project aimed to determine the allotment of machines available in the production unit of the organization according to the part specific machining requirements and check whether there is a requirement of purchasing new machines. Machining processes are broaching, chamfering& roofing, hobbing, shaping& shaving.

Tool used (Development tools - H/w, S/w) : Microsoft Excel

Objectives of the project : 1)To budget the total cost of tools required for the production of E Gear Drive & DCT for the year 2020-21 & 2021-22, 2) To derive the formula for the cycle time of gear grinding process being performed in the production unit, 3)

Major Learning Outcomes : 1) Parameters on which the cycle time calculation of gear grinding depends- tooth depth, approach length, helix angle, wheel diameter, axial feed, no. of starts in wheel.

2) No. and types of machines available for production of parts.

3) Process of allotm

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Opting for Divgi TorqTransfer Systems as my Practice School 2 station has been very beneficial for me. I was able to gain the knowledge and an industrial perspective similar to what I had expected. Other than the projects and technical work, I was able to gain personality development by inculcating the qualities such as discipline, punctuality & time management. I found the work culture of the organization very good and the coordination between the employees is very commendable. It has given me immense pleasure to work here for these 5 months.

Academic courses relevant to the project : Lean Manufacturing, Manufacturing Management, Metal Forming & Machining, Manufacturing Processes

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Name: TANMAY JAIN (2016ABPS0918P)

Student Write-up

Short Summary of work done during PS-II : Prototype Development for 5 Speed and 6 Speed Manual Transmission Cases.

I was also involved in the designing of packaging box layout for shipment of Outer Core Assembly to the Sonalika group and the design of the preliminary floor layout for the 5MT assembly Main Line.

Tool used (Development tools - H/w, S/w) : MS Excel, MS Powerpoint, UG NX 12.0, SMT Masta 10, SmartDraw

Objectives of the project : The objective of the project is to assist in the manufacturing and design corrections that take place during development of a working prototype.

Major Learning Outcomes : Learnings Related to project -

☐　　Learned about working of transmission, synchronizers, transfer cases and shift mechanisms

☐　　Learned about various problems related to "Smooth Shifting" and how to identify and rectify them

Technical Skills -

☐　　Learnt

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment of the company was quite friendly and helpful. I was guided by my mentors and helped by my fellow interns in any event when I was stuck or confused. The company employees are warm & understanding and enough time is given to complete the tasks and projects allotted to you.

Academic courses relevant to the project : Manufacturing Management, Lean Manufacturing, Design of Machine Tools, Tool & Fixture Design, Machine Design & Drawing, Engineering Graphics

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PS-II Station : DMI Finance Private Limited , New Delhi

Faculty

Name: Gaurav Nagpal

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Student

Name: MIHIR KUMAR . (2015B3A30564H)

Student Write-up

Short Summary of work done during PS-II : An income prediction model for the customers who had taken a loan from the company was developed. Machine Learning Algorithms like XGBoost, Random Forest Regression etc. were used to predict the income. Before that the data to develop the model was accessed using the AWS Athena service. SQL was used for data analytics and relevant data was downloaded. Then the python IDE Spyder was used to develop the model. The basic workflow was as follows:- a)Visualization of the relevant data, b) Missing Value Imputation, c) Feature creation using the data, d)Finding the trends between independent and dependent variables e)Using various machine learning algorithms for prediction f)hyper parameter tuning. After model development the model was deployed on the Lambda service of AWS and an API was created for real time results.

Tool used (Development tools - H/w, S/w) : AWS Lambda, Athena, S3 Bucket, SQL, Python - SciKit Learn, Pandas, SciPy, NumPy

Objectives of the project : Develop an Income Prediction Model

Major Learning Outcomes : Machine Learning Model Development, Data Visualization, Data Cleaning

Details of Papers/patents : Final Report uploaded on PSMS

Brief Description of working environment, expectations from the company : Great working environment and good learning opportunity. Small team of very helpful people. Working on live projects. Good Work-Life Balance.

Academic courses relevant to the project : Machine Learning, DBMS, Python

PS-II Station : Door Sabha Nigam Ltd. , Chennai

Faculty

Name: Gopala Krishna Koneru

Student

Name: P LAKSHMI SUVARNA . (2015B4A80656H)

Student Write-up

Short Summary of work done during PS-II : Reconciliation is process of analyzing and ensuring all sets of data are in agreement. This project ensures to validate and verify all sets of records at required checkpoints. This web framework also presents the report of errors and mismatches (if any) after validation of all sets of records. This detailed report of error analysis helps to avert any billing/revenue leakage. This project presents an easy solution to verify all the records for desired period. Error reports presented from this project would save a lot of time which otherwise would have been a tedious process for validation of records.

Tool used (Development tools - H/w, S/w) : Struts, Maria DB, HTML, CSS, JavaScript, jQuery, Shell script.

Objectives of the project : Creation of web framework which ensures record reconciliation. • Automation of script for counts extraction and computations from log of different locations and modules.

Major Learning Outcomes : web development, java

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : OOPS, DSA

PS-II Station : Ecom Express Pvt. Ltd. - Data Science , New Delhi

Faculty

Name: Gaurav Nagpal

Student

Name: DIVITA GUPTA (2015B1AB0605P)

Student Write-up

Short Summary of work done during PS-II : Developed a fuel prediction model for delivery agents using various data modelling and machine learning techniques.
Remodeled the delivery center allocation by locality level mapping using various geocoding algorithms.
Redesigned the delivery network of over 50 cities with a coverage of 75% and an accuracy of 85%.
Worked extensively on optimizing on-ground logistics costs by mapping pin-code areas and distances.

Tool used (Development tools - H/w, S/w) : R, MySQL, Python

Objectives of the project : Development of Fuel Prediction Model, Locality Mapping

Major Learning Outcomes : R, MySQL, Python

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Suppy Chain Management

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PS-II Station : eGovernments Foundation , Bangalore

Faculty

Name: Preethi N G

Student

Name: SRINIVAS KOUSHAL DEVABHAKTUNI (2016A7PS0017H)

Student Write-up

Short Summary of work done during PS-II : Developed a plan for an online training and onboarding program for technological partners.

Tool used (Development tools - H/w, S/w) : Overview of Learning Management Systems(LMS)

Objectives of the project : To help understand the training need of technological partners and then to create a plan to enable them online.

Major Learning Outcomes : Preparing and conducting a survey, managing partners, understanding the level of technological capabilities and preparing a plan for LMS.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The company has about a 100 employees who all work on the same floor. The environment is very relaxed. The company expects the interns to first learn about the company and the core technologies in the first month. Then clear projects are given for the rest of the 4 months. The interns are expected to work on their projects alongside any ad-hoc tasks that might come across.

Academic courses relevant to the project : Principles of Management, Technical Report Writing

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PS-II Station : Ernst & Young Global Delivery Services , Bangalore

Faculty

Name: Sandeep Kayastha

Student

Name: GEET SETHI (2015B4A10593G)

Student Write-up

Short Summary of work done during PS-II : Quantitative Financial Modelling. My Project was to develop and automate the pricing of Asian Basket Options using various models and then compare the simulation based results and benchmark them with the market price. I developed several models like Implied Volatility model, Local Volatility model using Dupire's algorithm and the most important Local Correlation Model.

This model can now be used to price the Asian Options of given any maturity tenure.

Tool used (Development tools - H/w, S/w) : Python, Excel, Powerpoint

Objectives of the project : To Price Asian Options using Various models

Major Learning Outcomes : Time Management
General Management
Networking skills
Communication skills
Improved Coding skills

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Work environment at EY is something to definitely talk about. I must thank and appreciate to all the people who've helped me throughout to learn. People are very collaborative and helpful . Organization not only expects us to be technologically advanced but also have an overall good and confident personality.

Academic courses relevant to the project : Differential Equations

PS-II Station : Fidelity Investments , Bangalore

Faculty

Name: H Viswanathan

Student

Name: PRAKHAR DEO (2015B1A80762G)

Student Write-up

Short Summary of work done during PS-II : Designed optimum stock trading indicators combining technical analysis tools with topic modelling on news articles and SEC fillings to get additional fundamental analysis indicators. This helps to correlate the returns of a stock with the returns of stocks in a similar industry and the occurrence of news articles on the web.

This project was performed by combining a number of machine learning models with natural language processing functions.

Tool used (Development tools - H/w, S/w) : Working in python, the following libraries were used :
1. pandas
2. sklearn
3. matplotlib
4. tf-idf vectorizer

Objectives of the project : To integrate topic modelling of news articles on tech companies with their stock market returns to create an indicator of stock price movement

Major Learning Outcomes : 1.Machine Learning models such as linear regression, logarithmic regression and random forest regression
2. Vectorizers such as tf-idf vectorizer
3. Natural language processing

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The company employee experience is extremely friendly where all team members are willing to help out most of the time. Team outings are regular and company sponsored which helps to increase employee bonding and a sense of trust.

Academic courses relevant to the project : None

Name: AYUSH KUMAR SINHA (2015B5A80830G)

Student Write-up

Short Summary of work done during PS-II : Worked here to build a pipeline for creating word embedding from live chat data generated from customers, extracting key features by dimensionality reduction and fitting it into an ML model for accuracy evaluation.

Tool used (Development tools - H/w, S/w) : Hive, NLP models from gensim, xgboost, Python3 and various python3 libraries

Objectives of the project : Automation of chat featurization and dimensionality reduction

Major Learning Outcomes : NLP, AI

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Flexible working hours, Manager and mentors were very supportive. No heavy workload and they only expected us to finish the work before deadline.

Academic courses relevant to the project : NNFL, Machine Learning

PS-II Station : Fidelity Investments , Chennai

Faculty

Name: Pradheep Kumar K

Student

Name: GANDE VISHAL (2015B1A30829H)

Student Write-up

Short Summary of work done during PS-II : Our problem statement was to process raw log files and predict the health of the server at any given future instant of time. We used MLP classifier model for the prediction.

Tool used (Development tools - H/w, S/w) : Python, Anaconda Spyder IDE

Objectives of the project : Oracle Business Intelligence Server Log Analyzer and Health Predictor

Major Learning Outcomes : Learnt how to implement few Machine learning Models.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Work life balance is great. Ample time given to learn. Company provides accommodation for the first two weeks. We were given transport facility too through out the internship.

Academic courses relevant to the project : Information retrieval, Data Mining, Neural Networks and Fuzzy Logic, Machine learning

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PS-II Station : Flipkart , Bangalore

Faculty

Name: Vineet Kumar Garg

Student

Name: Suvigya Vijay (2015B3A80606P)

Student Write-up

Short Summary of work done during PS-II : Worked on sales forecasting problem with the data science team at Flipkart. Surveyed and researched multiple econometrics and deep learning models for high-dimension product-wise sales forecasting with different static and time-dependent inputs such as offers and events.

Tool used (Development tools - H/w, S/w) : Python, R, Tensorflow, Shiny, Shell, SQL, Hive

Objectives of the project : National Day-level Sales Forecasting

Major Learning Outcomes : Learned to analyze and understand high-dimension data, gained insights of current research in time-series forecasting, and tuning deep learning architectures to practical use cases

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : Excellent working environment and culture, good guidance from mentors. Regular sync-ups to keep track of progress and complete ownership of the project

Academic courses relevant to the project : Neural Networks and Fuzzy Logic

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PS-II Station : Futures First Info Services Pvt Ltd , Hyderabad

Faculty

Name: Sandeep Kayastha

Student

Name: CHETAN BHARGAV REDDY MEREDDY (2016A7PS0802H)

Student Write-up

Short Summary of work done during PS-II : I worked as a Research Analyst intern in the Capital Markets division. I was involved in the designing of tools that traders can use for better execution of their trades. I had access to a Reuters Market Terminal from which I would extract live or historical market data and work with traders to generate certain specific functionalities which would be presented in the form of an Excel sheet.

Tool used (Development tools - H/w, S/w) : Reuters Market Terminal, Trading Technologies, Microsoft Excel

Objectives of the project : To provide traders with instruments and tools with functionalities that assist them in the implementation of their trades.

Major Learning Outcomes : Analysis of market data

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Friendly and helpful work environment.

Academic courses relevant to the project : DRM, FRAM

PS-II Station : Futures First Info Services Pvt. Ltd., , Jaipur

Faculty

Name: Sandeep Kayastha

Student

Name: SANJANA JAIN (2016A2PS0587P)

Student Write-up

Short Summary of work done during PS-II : Made web application for analysing historical data in form of charts and tables and for identifying working technical indicators, if any for various derivative products being traded in the company. Applications were made using R studio and R shiny majorly. Data was extracted from Bloomberg terminal and cleansed before

using further. We were also given TT simulator for week to trade in Euro Bunds and Gilts to get an idea about the trading experience.

Tool used (Development tools - H/w, S/w) : R Studio

R Shiny

Trading Technologies

Excel

Bloomberg

Reuters

Objectives of the project : To substitute use of costly softwares such as Rueters for analysing charts and patterns for live data using R.

Major Learning Outcomes : 1) Trading Experience

2) App development

3)Technical Analysis

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : DRM

SAPM

FINANCIAL ENGINEERING

BAV

Name: ANSHUMAN MANGAL (2016A4PS0252G)

Student Write-up

Short Summary of work done during PS-II : Worked in R to develop analytical tools for quantitative analysis of different derivatives. The work included understanding the problems

faced by traders during market research and product analysis , providing them with proper solution in the form of an app.The main motive of the project was to develop customised analytical tools to minimise the dependence of company on commercial apps and websites.

Tool used (Development tools - H/w, S/w) : R , Excel VBA and TT Platform

Objectives of the project : To develop quantitative analysis tools using R.

Major Learning Outcomes : Data Analytics, App Development in R,User Interface development in R Shiny

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Futures first is one of the most result driven Proprietary Trading firms in India.The working environment is open , demanding, disciplined and
focused work is expected.The management is very approachable and other employees are friendly.

Academic courses relevant to the project : Probability & Statistics and Derivatives & Risk Management

PS-II Station : Gabriel India Ltd , Pune

Faculty

Name: Sudeep Kumar Pradhan

Student

Name: TANIKONDA VENKATESH (2014A4PS0226P)

Student Write-up

Short Summary of work done during PS-II : Gabriel India Ltd. a leading shock absorber manufacturing company. They design and develop new shocks depending upon the customer (most of the OEMs). In development process, prorotypes were built and tested to make sure all the customer requirements are statisfied. These prototypes were built in a way such that sub-assemblies can be varied for producing desirable Damping force in the damper (Shock absorber). Piston sub-assembly is one of such sub-assemblies. In Piston sub-assembly, valve stacks will be located on both sides. These are made up of shim discs, orifice discs.

In development process, during testing phase, Damping force is generated by varying valve stacks, etc... that too in trail and error fashion. Because of this time taken to fine tune damper will be long. To reduce this time taking process, they initiated an application such that damping force can be generated for a given set of valve stack properties with a fixed shock absorber outline.

In this application,

Stage-I :

Indentification deflection of valve stack with respective to velocity of piston rod in damper.

Stage-II :

Keeping deflection of stack as input, Stiffness of the stack can be calculated

Stage-III:

Note: Damping force is nothing but resisting force offered by shim stack to oil flowing from one chamber to another chamber.

Keeping stiffness as input, Damping force is calculated. A trend is generated for Damping force vs Velocity of piston rod.

This prediction of Damping force w.r.t. velocity of piston will make the NPD (new Product Development) team take less time for appropriate valve stack.

We developed a MATLAB GUI with references from Ansys fluent work, which will predict the deflection of the stack.

Tool used (Development tools - H/w, S/w) : MATLAB, Ansys (Structural & Fluent), Excel sheets, CATIA V5

Objectives of the project : Prediction of deflection of pyramid shim stack

Major Learning Outcomes : 1. Non-linear deflection of Annular plates.

2. In-depth MATLAB experience.

3. Hands on experience in Ansys structural as well as Ansys flent.

4. Full scale development of GUI from scratch.

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : 1. Mechanics of Solids

2. Advanced Mechanics of solids

3. Kinematics and Dynamics of Machines

4. Mechanical Vibrations

5. Production Techniques I & II

6. Machine Design and Drawing

7. Fluid Mechanics

8. Non-linear Vibrations

9. Numerical Fluid Flow and

Name: MRADUL KUMAR YADAV . (2016A4PS0211H)

Student Write-up

Short Summary of work done during PS-II : Completely core mechanical research work. Had to formulate a numerical method for prediction of damping offered by a specific arrangement of valves inside a twin tube hydraulic shock absorber which used various types of physics mainly CFD, FEM and Solid Mechanics.

Also given some suggestions for Energy Harvesting regenerative feedback system to retain some energy lost by hysteretic losses.

Tool used (Development tools - H/w, S/w) : ANSYS, MATLAB, CREO, HYPERMESH, EXCEL

Objectives of the project : Prediction of a Mathematical model to reduce the time taken in Product Development.

Major Learning Outcomes : Learnt Fluid-Structure Interactions, Machine Learning and various Softwares like CATIA, MATLAB, HYPERMESH. Also learnt the skills required in Project Management.

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : The working environment in my department (R&D) was pretty good. People were cheerful and the work culture was motivating.

Academic courses relevant to the project : Advance Mechsol, FEM, NumTech, CFD, Fluid Mechanics, Applied Thermo, MDD

PS-II Station : Genpact , Bangalore

Faculty

Name: Vimal S P

Student

Name: VIKASH SINGH . (2014B5A10832P)

Student Write-up

Short Summary of work done during PS-II : Created a Ticket Management systems to manage all tickets of a client company.

Tool used (Development tools - H/w, S/w) : Django, python , html, css, bootstrap

Objectives of the project : to make a fully functioning django app for to manage all tickets(complaints)

Major Learning Outcomes : quite a good learning experience. I learned python, Django. beside I also learnt to utilise html to full extent.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Working environment is quite good. There is a good chance that you will land some good project in R or python or some data science(machine learning) project.

Academic courses relevant to the project : Data structures and algorithm, Machine Learning.

Name: MD. ADNAN KHAN (2015B1A10877P)

Student Write-up

Short Summary of work done during PS-II : There are deployed machine learning pipelines in a dashboard meant for pharmaceutical companies. In addition to those services we need the entity extractors which will extract labeled words from the customer data to supply useful information to the clients. Research had been conducted for optimal entity extraction pipeline to be integrated with the dashboard but to make the clients understand the importance and reason

behind the machine learning models' predictions, we need to develop a pipeline which accepts the models' predictions on data and provides a simplified visual explanation of the factors or indicators behind those explanations.

Tool used (Development tools - H/w, S/w) : Python, LIME, SHAP, Keras, Doccano, Spacy

Objectives of the project : Implementing Named Entity Recognition and Model Interpretation on Medical Data

Major Learning Outcomes : Learned - Preparing training data, data pre-processing, implementing entity extraction pipelines and interpreting their results.

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : Great working environment, supporting mentors and no deadline pressure.

Academic courses relevant to the project : BITS F464 Machine Learning, CS F320 Foundations of Data Science, CS F407 Artificial Intelligence

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Name: AKARSH RASTOGI (2015B5A40670P)

Student Write-up

Short Summary of work done during PS-II : Learnt ML, Deep Learning and Reinforcement Learning from different online resources in the first 2 months. For the given combination of problem and dataset, I developed an RL algorithm that increased efficiency by more than 750% from the deterministic Dynamic Programming solution.
I was also given the opportunity to deliver 2+ hours of RL Lectures every week to a distinguished team of employees including the AVP (Data Science head).

Tool used (Development tools - H/w, S/w) : OpenAI (made custom environment), explored DRL algos from Google DeepMind/Dopamine.

Objectives of the project : Develop an efficient, customizable and generalized solution for space utilization using an optimal selection of products to maximize revenue.

Major Learning Outcomes : Went through a lot of self-learning of most nascent and exciting field of Reinforcement Learning, read many cutting-edge research papers.

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : Environment is just great, no hierarchical opacity, direct and daily involvement with multiple AVPs in my case. Lots of space and time to learn things on your own. Its a good, workplace with minimal toxicity and pressure.
Lots of cutting-edge AI projects (mostly in CV and NLP).

Academic courses relevant to the project : ML, AI, DSA (I did mostly Dynamic Programming to compare and benchmark).

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Name: PRAJJWAL KHANDELWAL (2016A3PS0251P)

Student Write-up

Short Summary of work done during PS-II : It was a Machine Learning Project which involved object recognition followed by sentiment analysis. It was implemented on poster and video ads so that to analyse the impact the words and other attributes creates.

Tool used (Development tools - H/w, S/w) : Since its a ML based project, Python was majorly used. Keras, Tensorflow, Pytesseract were the libraries used.

Objectives of the project : To design effective ad campaigns for the companies

Major Learning Outcomes : The learning outcomes includes:

1. Machine Learning and deep learning basic knowledge

2. Computer Vision

3. Image Recognition.

4. Sentiment Analysis

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Machine Learning, Digital Image Processing

Name: NIHAL TIWARI (2016A4PS0403P)

Student Write-up

Short Summary of work done during PS-II : Good exposure in supply chain management , also being a service based company we could foresee the whole supply chain of Kraft Heinz from industrial point of view. Projects were good and it helped a lot in the long run.

Tool used (Development tools - H/w, S/w) : Excel, Excel VBA, Python, JDA

Objectives of the project : Optimisation of truck loads, Improvement in direct shipment

Major Learning Outcomes : Applying optimisation techniques in real life and analysing data

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Working environment was very good. People around us were friendly and easily approachable.The learning that we get from the experienced people around was quite good

Academic courses relevant to the project : Optimisation Techniques, Fundamentals of fin & accounting, Supply Chain Management, Sustainable Manufacturing, Lean Manufacturing, Math 1,2,3 and Probability and Statistics, Computer Programming

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Name: BHARSAKALE AMRUTA SHARAD (2016A5PS0626P)

Student Write-up

Short Summary of work done during PS-II : E Detailing/Digital Detailing is defined as the use of electronic and interactive media that facilitates sales representatives on sales calls with Health Care Professionals(HCPs). This is now a well established method of increasing pharmaceutical company efficiency in customer engagement, hence helping to better analyse business performance.

Through data management and data analytics, a Digital Detailing tool has been developed in R Shiny. From the given database, which includes data about the eSales calls made by sales reps to HCPs, this tool analyses all the Key Performance Indicators(KPIs) . The tool then helps to understand the significance of the KPIs by placing them in a visual context i.e., in the form of various charts and graphs.

Tool used (Development tools - H/w, S/w) : Rstudio, MsExcel, MySQL

Objectives of the project : Develop a digital detailing tool for a global pharmaceutical company for the analysis of reachof eSales activity

Major Learning Outcomes : Healthcare Domain, Data Analytics Languages (R, SQL)

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Approachable teammates

Academic courses relevant to the project : Pharmacoeconomics, Pharmaceutical Management and Quality Control, C Programming

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Name: NALLANI CHAKRAVARTULA SAKETH (2016ABPS0839P)

Student Write-up

Short Summary of work done during PS-II : The complexity of managing projects has been increasing day by day. Quick browsing through the changes over past one decade tells us how fast the "Complexity" of managing projects has been changing. Various factors contributing and will continue for next one decade to name few, as, shortening product development cycles, changing customer expectations, exponentially increasing usage of internet as well as a greater number of millennial in the project teams. We believe, one of the ways to manage this complexity and the need of changing world, is using digitization. The digitization of Project Development phases will provide all synchronized database available to each member appropriately and same can be used for Managerial decision making. Building Analytics on this database, Risks affecting Project Performance Parameters – Time, Cost, and Quality can be effectively predicted and controlled. In addition, status will be available for each project to individual project teams whereas Project Dashboard will provide bigger picture for managerial decisions on Strategies & Organizational Priorities. Because of its real-time nature, it can be available across the world at the same time providing a common platform to network and common language to interact.

Tool used (Development tools - H/w, S/w) : R, SHINY, SQL

Objectives of the project : Create a platform for 1)Keeping track of projects distributed 2)Workload management and distribution 3)Tracking status and time for different projects 4)Visualizing the data entered Storing the project histories

Major Learning Outcomes : R, SHINY, SQL

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Good mentor, good project, good working environment with flexible timings. They just expect you to be sincere and finish the work before the deadline. They'll train you if you are not familiar with the working tools.

Academic courses relevant to the project : NA

Name: AMAAYAA GOSWAMI (2016B5PS0001P)

Student Write-up

Short Summary of work done during PS-II : E Detailing/Digital Detailing is defined as the use of electronic and interactive media that facilitates sales representatives on sales calls with Health Care Professionals(HCPs). This is now a well established method of increasing pharmaceutical company efficiency in customer engagement, hence helping to better analyse business performance.

Through data management and data analytics, a Digital Detailing tool has been developed in R Shiny. From the given database, which includes data about the eSales calls made by sales reps to HCPs, this tool analyses all the Key Performance Indicators(KPIs) . The tool then helps to understand the significance of the KPIs by placing them in a visual context i.e., in the form of various charts and graphs.

Tool used (Development tools - H/w, S/w) : Excel, SQL, R

Objectives of the project : Design and develop a digital detailing tool for a global pharmaceutical company in the analysis of reach of eSales activities

Major Learning Outcomes : 1. Obtained knowledge about how the pharmaceutical sector works
2. Learnt how to build a digital detailing tool using R and R Shiny.
3. Learnt about marketing and promotional strategies in the healthcare domain

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The organisation provided with a healthy learning environment to pick up skills required in the field of Data Analytics, such as SQL and R.

I was exposed to the pharmaceutical domain for the first time and learnt a lot about what marketing and promotional strategies are utilised in this sector.

All the team members, especially the manager, we're extremely helpful and supportive throughout the intership period.

Academic courses relevant to the project : Pharmaceutical Management and Quality Control, Pharmacoeconomics and C programming.

PS-II Station : GenY medium , Hyderabad

Faculty

Name: Anjani Srikanth Koka

Brief write-up on PS-II station : The expectation from this station is that students should possess knowledge of marketing concepts with focus on Digital Marketing, R, Power BI, Python, MySQL. In addition to these, students need to possess communication skills and presentation skills. The learning outcome is that the students will have a broad understanding on Digital Marketing and Marketing Analytics

Student

Student Write-up

Short Summary of work done during PS-II : A healthcare brand was assigned as a client, with an objective of increasing the qualification of its leads(which eventually get converted to an assessment) across 5 major cities in which it was offering its services. This began by understanding the digital marketing aspect of this and how the lead journey happens on an overall basis. Google Search campaigns were run in order to get leads on a daily basis as these help in showing the website in the top 3 results. These campaigns were optimized on a daily basis after an analysis of its performance in the preceding day. This analysis was possible with the help of daily tracker, insights tracker and ad-group level tracker that were set-up on google sheet, wherein the customer data and google Ads data was added on a daily basis; which then went through some set formulas to show us the daily performance of the campaigns in terms of spends, impressions, clicks, CTR, CPC, Leads,CPL etc. The client gave the targets on a monthly basis and 80-90% of them were achieved on an average.

Tool used (Development tools - H/w, S/w) : Google sheets, Google Ads, Google Analytics, Amazon Marketing Services, Facebook Ads Manager, SEMrush, Moz etc.

Objectives of the project : To increase the qualification for the leads in a healthcare brand

Major Learning Outcomes : Learned about how digital marketing works and its various applications in different channels such as google, facebook, instagram, amazon etc. Learned how lead journey happens from the lead creation, lead nurturing and to a possible conversion. Excel, goog

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Work environment was great. Everyday you get to learn something new. Tasks were assigned from day 1 and you were given ample amount of time to complete them. Most of the tasks were interesting while some were a bit tedious. All in all, a great experience if you want to learn something different and new. The company expected you to be accountable for the work you

do. Your work was recognized and appreciated well. And you were contributing from day 1 with your work, towards the company.

Academic courses relevant to the project : There was not any academic course related to the project which was done in the area of digital marketing.

Name: M SPOORTHI REDDY . (2016A3PS0827H)

Student Write-up

Short Summary of work done during PS-II : I worked as a digital marketing analyst and also an active member in the business development team to increase the online traffic/sessions and generate more leads and conversions for the clients/B2B/B2C. Major working parts were SEO, SEM, SEO audits, backlinking, etc

Tool used (Development tools - H/w, S/w) : SEMrush, Moz, Google Analytics, Google Search Console, forestry.io, WordPress, SimilarWeb, Google PageSpeed Insights, MS Excel/MS Word/MS PowerPoint, Facebook Ads Manager, Google AdWords, Google SEARCH/DISPLAY/Youtube Campaigns, Keyword Planner

Objectives of the project : The objective behind this project is to generate ideas, initiatives & activities that are aimed towards making a business better and, create long-term value for an organization from customers, markets and relationships.

Major Learning Outcomes : Search Engine Optimization, Business Development, ON Page SEO, OFF Page SEO, Competitor Analysis, Digital Marketing Analytics

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Principles Of Management

PS-II Station : GEP , Navi Mumbai

Faculty

Name: Ankur Pachauri

Brief write-up on PS-II station : Essential prerequisite courses required before working on the project
Python OOPS and Data structure
Python, Pyspark, Azure Data Factory, SSMS
OOP, NNFL
DBMS, course that deals with Apache Spark and Data Bricks

Student

Name: AASHISH AGARWAL (2015B3A80411G)

Student Write-up

Short Summary of work done during PS-II : I was assigned to the Data Engineering team within the Data Science Dept. of GEP. During the course of my internship, I worked on 3 projects. The first was a short python script project for reading the data and uploading it to SQL server. The second was from Data Science which was geography normalization which required various forms f fuzzy string matching and the final one was from Data Engineering team again, which was data development and enrichment for a chat bot.
PS - You may be assigned to Data Science dept. but that won't guarantee a Data Science project as was in my case.

Tool used (Development tools - H/w, S/w) : Pyhton, SQL, Spark, Azure Data Bricks, Azure Data Flow

Objectives of the project : ETL pipeline for Chatbot

Major Learning Outcomes : Spark

Details of Papers/patents :

Brief Description of working environment, expectations from the company : GEP has an awesome work culture and friendly people who guides you through your projects and tasks. Most likely you won't be assigned a mentor and you would be the part of team from day 1. You will get a proper corporate experience and will have an idea what the life of an programmer is like in the industry.

Academic courses relevant to the project : DBMS, Machine Learning

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PS-II Station : Goldman Sachs - Investment Banking , Bangalore

Faculty

Name: Siddharth Mishra

Student

Name: NAVEEN P S . (2015A1B30716G)

Student Write-up

Short Summary of work done during PS-II : Part of EMEA Financial Institutions Group, IBD; worked on live projects in European & GCC Banking, European Asset Management and European Insurance Sectors

Tool used (Development tools - H/w, S/w) : Internal tools; MS Excel, MS PowerPoint

Objectives of the project : Understanding the rationale behind Mergers & Acquisitions, and qualitatively & quantitatively pitching to the client substantiating our strategy to go about the process

Major Learning Outcomes : Overall understanding about the IBD space, key financial metrics used, impact of macroeconomic events on various deals and financial models used

Details of Papers/patents :

Brief Description of working environment, expectations from the company : High peer-based learning; got to work on live projects; no differentiation despite being an intern

Academic courses relevant to the project : Business Analysis & Valuation; Fundamentals of Finance & Accounting; Financial Management; Security Analysis & Portfolio Management; Derivatives & Risk Management

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Name: SAHIL MANTRI (2015B3A10377G)

Student Write-up

Short Summary of work done during PS-II : Analyzing and preparing generic industry, market or specific company overviews; Researching and analyzing specific company financial information and fundamentals; Creation, maintenance, and analysis of basic and advanced financial modeling to build a valuation perspective; Assisting in forming the appropriate structuring of a deal; interact frequently with bankers in different regions.

Tool used (Development tools - H/w, S/w) : MS Office

Objectives of the project : Buy Side advisory to choose appropriate target for the prospective client out of most selected peers

Major Learning Outcomes : M&A Advisory, Financing (Equity and Bond issuance), Corporate Defence , Broking (ECM)

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Financial Management, Business Analysis and Valuation, Fundamentals of Finance and Accounting

Name: **AMAN GUPTA (2015B3A40615P)**

Student Write-up

Short Summary of work done during PS-II : Making Pitchbooks, client meeting materials, working on valuation material and anything related to an on going transaction. I was part of Industrials team and mostly dealt with Airlines and Packaging industry

Tool used (Development tools - H/w, S/w) : Excel, PowerPoint, Bloomberg, Thomson Reuters

Objectives of the project : No specific project. You have to work on any ongoing transaction or client meeting your team is working on.

Major Learning Outcomes : Learnt to work under immense pressure and tight deadlines while meeting quality standards. Have mastered the Excel and PowerPoint hacks. Was able to see how the theoretical financial concepts are applied in actual transactions.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Very flat heirarchy. Everyone is approachable and willing to help you. But the quantum of work is huge. Pulling off all nighters is a common on floor. It's a great learning opportunity - you are given ownership of the work and the distinction between an Intern and full time Analyst is very less. You'll almost be given similar responsibilities and perks. Good networking skills are extremely important for a long term future.

Academic courses relevant to the project : BAV, FundaFin, TechRi

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PS-II Station : Goldman Sachs India Pvt. Ltd. - Operations , Bangalore

Faculty

Name: Siddharth Mishra

Student

Name: ROHIT MANCHANDA (2015A1PS0505P)

Student Write-up

Short Summary of work done during PS-II : I interned in the securities division at goldman sachs. The primary role on desk was within equities asset class. It was a risk management function in equity derivative ops providing accuracy, timeliness, and integrity to securities underlying business, controlling the risk associated with the booking and legal documentation of structured derivative transactions by performing independent and thorough review.

Tool used (Development tools - H/w, S/w) : GS internal tools and calculators, MS-Excel

Objectives of the project : Reduce the time for trade review process of equity linked notes

Major Learning Outcomes : Function required extensive interaction with the traders, structuring and strategists/quants and also involves work with the other departments, including the documentation teams, middle offices, legal and product control.
Details of Papers/patents :

Brief Description of working environment, expectations from the company : Work hours can get tough depending on trade volumes. Organization is more or less flat in terms of hierarchy.

Academic courses relevant to the project : DRM, SAPM (not necessary but useful)

Name: ISHAN RAI . (2015B4AB0646H)

Student Write-up

Short Summary of work done during PS-II : The work in the Exotic Trade Review mainly comprises of a detailed analysis of different equity-linked over-the-counter trades to manage the operational risk. The team ensures the consistency of internal booking systems with
the legally binding documents before they are handed over to the clients.

Tool used (Development tools - H/w, S/w) :

Objectives of the project : Eliminate the discrepancies between the document and the internal records so as to prevent unexpected mismatches during settlements. Additionally, the documents sent out to the clients must reflect the agreed-upon intent of the trade correctly and compreh

Major Learning Outcomes : Understanding of the characteristics of various derivatives, of exotic options & their valuation and of the outcomes, behaviour & payoffs of complicated trade structures.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : You are given real responsibilities and offered good learning opportunities. The managers and teammates are professional and helpful.

Academic courses relevant to the project : Derivatives and Risk Management

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Name: AKSHIT AHUJA (2016A1PS0319P)

Student Write-up

Short Summary of work done during PS-II : The first phase was to understand how my team chases the client daily and how to manually extract the required data that is to be sent to the client. I used VBA on which you can code and develop macros to automate the process. I developed a macro which does the complete work in just 4 clicks and thus requiring minimal manual effort. I also used Alteryx and automated quite a few processes

Tool used (Development tools - H/w, S/w) : VBA Excel Macros, Alteryx, SQL, Tableau

Objectives of the project : AUTOMATION OF INTERNAL AND CLIENT E-MAILS

Major Learning Outcomes : • I didn't have any background in coding. So, I learnt coding in VBA after coming to GS only.
• Apart from this, I have been constantly learning about other Business Intelligence tools like Alteryx, SQL, and Tableau.
• I acquired some of the most importan

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : DRM, FINMAN, FINE

Name: TANAY SAH (2016A2PS0521P)

Student Write-up

Short Summary of work done during PS-II : My work is processing the Structured Products which is a combination of Bonds and derivatives with varied underlie-rs. The work is deadline based as these are securities Issued into the Market. As a part of project it is expected to bring in changes in workflows and undertake automation tasks. Goldman also has a Data School program where they teach Business Intelligence software to empower the employees to undertake automation tasks.

Tool used (Development tools - H/w, S/w) : Microsoft Excel, Sql, Alteryx and some Goldman internal softwares

Objectives of the project : Automation

Major Learning Outcomes : Chance to learn Excel VBA, Sql , Alteryx, Tableau

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Finance Minor

PS-II Station : Goodera (NextGen PMS Pvt. Ltd)- Non IT , Bangalore

Faculty

Name: Chandra Shekar R K

Student

Name: SHUBHAM KUMAR (2015B3A80563P)

Student Write-up

Short Summary of work done during PS-II : As part of Product Team. I worked with different teams and helped in development of their new product which reduced their Dashboard building time by 80%.

Tool used (Development tools - H/w, S/w) : Postman,JavaScript,HTML, CSS, MongoDB

Objectives of the project : New Product Development and Building Demo Products.

Major Learning Outcomes : Organizational Structure, Product Development Cycle, Knowledge about tools and frameworks used is Web Application Development.

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : OOP

Name: ANIRUDDHA BANERJEA (2016A1PS0743P)

Student Write-up

Short Summary of work done during PS-II : Work was divided into two projects: Data Outlier Detection to detect outliers in the client data and creating a common framework which would enable all the developers to create and upload excel files effectively and much more quickly

Tool used (Development tools - H/w, S/w) : Python,Pandas,Numpy,Angular Js, Node Js

Objectives of the project : Creating a data outlier detection tool and creating a common framework to download and upload excel files

Major Learning Outcomes : Version Control Systems, Rest API's, Working with large data

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Working environment is non taxing and learning is encouraged and ample time is alloted

Academic courses relevant to the project : Neural Networks and Fuzzy Logic, Machine Learning

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PS-II Station : Grasim Industries Ltd. , Nagda

Faculty

Name: Arun Maity

Brief write-up on PS-II station : Students should have interest in Environmental Pollution control and contribute to Zero Discharge Plant initiative.

The students should evince interest in data collection and analysis, interact with the employees of the organization professionally and follow industry code of conduct.

The industries want that the students should come up with suggestions and recommendations based on data collection and analysis so that the organization benefits and students also have good learning during the period.

Student

Name: TADANKI JOY STEPHEN (2014B3A10533G)

Student Write-up

Short Summary of work done during PS-II : In this project we concentrated on the ETP (Effluent Treatment plant) and its working. We also studied the new equipment that has been introduced in the department. We also found out the functioning of all the machinery in the ETP. We also found out how pH of the Inlet water changes with the acidity of the acid used and how it should be neutralized. We also studied the removal of the Zinc material from the Inlet water. We also studied the waste percents and why the waste in question is at a higher rate compared to others. We also studied how the cleaning procedures of jets and candles can be improved with greater efficiency.

Tool used (Development tools - H/w, S/w) : Microsoft Excel, MATLAB

Objectives of the project : Methods to reduce ETP Load due to Spinning

Major Learning Outcomes : How pH varies with Acidity & other factors, pH level for the removal of zinc from waste water

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Working with the shift engineering was really good. They were very cooperative in helping me during the PS-2.

Academic courses relevant to the project : 1. Introduction to Fluid Mechanics

2. Unit Operations of Chemical Engineering

3. Chemical Engineering Thermodynamics.

Name: NUKALA BALA SAI KRISHNA (2015A1PS0753P)

Student Write-up

Short Summary of work done during PS-II : Detailed analysis of the efficiency of scrubber system with new design equipment, efficiency analysis of the condenser system with fins, derived a function of parameters for maintaining optimum recovery of CS_2.

Tool used (Development tools - H/w, S/w) : Aspen , Excel

Objectives of the project : To increase the CS_2 recovery percentage from spinning department , using data analysis , new design.

Major Learning Outcomes :

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Chemical process technology, Heat transfer.

PS-II Station : Groww - Software Development , Bangalore

Name: Akanksha Bharadwaj

Student

Name: SHUBHAM LATHER (2016A7PS0006P)

Student Write-up

Short Summary of work done during PS-II : It was mainly Backend Development for web and app. A whole new learning platform to learn about investment world was developed by us. Backend development was done in Springboot MVC framework.

Tool used (Development tools - H/w, S/w) : Java, Spring MVC framework, Maven, Git

Objectives of the project : To make the investing platform more secure and easy to onboard for the new user. A new learning platform for the users who are new to this.

Major Learning Outcomes : Backend Development usingSpring MVC framework, working in a team and sticking to deadlines.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The work environment is quite cool and fun. Employees are very helpful. You'll get to learn a lot while working in a team. We worked directly under the CTO of the company. If you have some suggestions, they value it and if it is better than the other ones, then implement it. You are given tasks that are important and sometimes critical too, so you're expected to stick to the deadlines sometimes very strictly. If you did something, you own that and any further improvements are in your own interest. In short, it's way great if you want to learn new things and how to work in a company.

Academic courses relevant to the project : OOP, DSA, Computer Networks

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PS-II Station : HAPPAY (VA Tech Ventures Pvt Ltd.) , Bangalore

Faculty

Name: Mohammad Saleem J Bagewadi

Student

Name: RASHI KHANDELWAL (2015B1A80416P)

Student Write-up

Short Summary of work done during PS-II : Work was mostly related to software development (Back-end). They asked us to build web applications which were directly used by the company. The working cycle consisted of daily status evaluation after the 15 day target was allocated. Development was in Python and Django.
I've made Gmail Parser and Invoice Center application along with GST service application.

Tool used (Development tools - H/w, S/w) : Python and Django(API design), Postman, Docker

Objectives of the project : Gmail Parser and Invoice Center Web Application

Major Learning Outcomes : Learning involves use of Object Oriented Programming concepts in Python and use of Django framework.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Working environment was very encouraging. There are seniors willing to help always. There's not much of diversity in the work, it's mostly Back-end APIs related only.

Academic courses relevant to the project : OOP

Name: AKSHAY GUPTA (2015B2A80699G)

Student Write-up

Short Summary of work done during PS-II : I was part of product management team at Happay during my PS2. I was responsible for defining product requirements, planning the product roadmap, enhancement of existing product features and brainstorming on new product possibilities.
I interacted with the Engineering/ Product teams to develop viable and innovative solutions for product related issues. Staying abreast of the competitive landscape and to solicit customer feedback on existing product capabilities were some of my key functions in this role.

Tool used (Development tools - H/w, S/w) : Balsamiq Mockups, Lucidchart, Mircrosoft excel, Mircrosoft word, Mircrosoft powerpoint

Objectives of the project : Vendor Product Enhancement

Major Learning Outcomes : Product Management

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Principle of management, Principle of Economics, C programming

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PS-II Station : Here Maps - Distributed Data , Mumbai

Faculty

Name: Ankur Pachauri

Brief write-up on PS-II station : Essential prerequisite courses required before working on the project
Proficiency in Python, Elasticsearch, Kibana, PostgreSQL, and Advanced Excel, is required, Machine learning , basics of artificial intelligence, Python
Python,AWS,Webex Api, Java, Scala, Elasticsearch, Logstash, Kibana, Spring Boot, HTML, CSS, JavaScript
DSA, OOP, Neural network and fuzzy logics, Computer Programming, Symbolic Logic, Digital Signal Processing
Python Programming, Computer Graphics, Basics of JavaScript, Machine Learning, Cloud Computing, NNFL, DSA, AI

Student

Name: DIWAN AAKASH PRASAD (2016A3PS0104G)

Student Write-up

Short Summary of work done during PS-II : Worked on Java, springboot application, aws - lambda, ECS, S3.

Tool used (Development tools - H/w, S/w) : Jdk-8, eclipse

Objectives of the project : Enhancements to the tool/application the team has made.

Major Learning Outcomes : Java, spring, VueJs, AWS, Hadoop.

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : Flexible timings, great work culture and ethics, practicing agile.

Academic courses relevant to the project : OOP, DSA

Name: AGAM PRATAP SINGH (2016A3PS0193G)

Student Write-up

Short Summary of work done during PS-II : NLP and Neural networks training of model to predict the object present in an image and write a descriptive textual story in form of 3-4 sentences. Training Image captioning model was a very fun task to pull off.

Tool used (Development tools - H/w, S/w) : TensorFlow, python, numpy, pandas

Objectives of the project : Simplify the feedback process verification and keeping the map data fresh.

Major Learning Outcomes : AI ML model training

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : Very friendly and supportive people, work culture is attractive and enthusiastic. Flexible working hours and easily accessible resources.

Academic courses relevant to the project : Computer programming, machine learning, neural networks and fuzzy logic

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Name: SOURAV DIWAN (2016A8PS0384G)

Student Write-up

Short Summary of work done during PS-II : I worked on a project that involved the skills of Python and Machine Learning(Object Detection) it helped me to learn more about AI ML .Then in my second project I made a chat bot using RASA that needs the skills of NLP that something new that i learned during my work.

Tool used (Development tools - H/w, S/w) : Python,ML,RASA

Objectives of the project : To make a CHATBOT .Approximate placememt of Traffic Sign

Major Learning Outcomes : How to use ML and AI

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : DSA,ML,OOP

PS-II Station : Hindalco Innovation Centre - Semifab, Taloja , Mumbai

Faculty

Name: Pavan Kumar Potdar

Student

Name: APURAV GUPTA (2015B2A40797H)

Student Write-up

Short Summary of work done during PS-II : Strength analysis of architectural extrusion sections in window frames was done as the project. It consisted of deflection analysis, various loading conditions, buckling analysis and safety analysis. A study of aluminium tensile testing was done before the analysis. There are different kind of window sections made for different conditions and all have a different strength. The analysis was done based on Indian Standard Code and some reference books like Strength of Materials.

Tool used (Development tools - H/w, S/w) : Universal Testing Machine (UTM), Advanced Excel

Objectives of the project : To provide a safety measure of a window section.

Major Learning Outcomes : Team work, research and development, academic research, analytical view.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Work environment was great. There is a good amount of industrial exposure that can be experienced here. The office was a two in one space with lab equipment on one side and working desk on the other. The employees of the department were very helpful.

Academic courses relevant to the project : Mechanics of solids, Advanced mechanics of solids

PS-II Station : Hindustan Unilever Research Centre , Bangalore

Faculty

Name: Srinivas Kota

Student

Name: PURU POURUSH (2015B3A10556P)

Student Write-up

Short Summary of work done during PS-II : I was assigned to the Digital Research and Development department. The work was based on Machine Learning applications. I worked on the project, "Application of Machine Learning in Chemical Engineering".

Tool used (Development tools - H/w, S/w) : Star ccm+, python, MATLAB

Objectives of the project : The objective was to show the prediction capabilities of Neural Networks. The program had to mimic the simulation soft-ware without being explicitly told about the physics behind the test case.

Major Learning Outcomes : Basic programming on python, MATLAB and introduction to Machine learning.

Details of Papers/patents : N/A

Brief Description of working environment, expectations from the company : Work environment is well suited for an intern. Work hours are flexible and the campus has all the

facilities. People are helpful and the interns have freedom to make changes in the direction of the project they are working on as long as it is logical and feasible.

Academic courses relevant to the project : Modeling and Simulation, CFD

Name: ANKIT SRIVASTAVA (2016A1PS0535G)

Student Write-up

Short Summary of work done during PS-II : Understanding complex phase diagrams of surfactants using rheology measurement as a tool and substantiation through microscopy/Static light scattering.

1) Studied about the Basic Properties of Surfactants

2) Studied about the Phase Behavior of Surfactants

3) Studied about the Microstructural Properties of Surfactants

4) Studied about the effect of Different Ratio of Surfactant Mixtures on Phase Diagram.

5) Studied about the effect of Addition of Organic Acid on Different Ratio of Surfactant Mixtures and then examining its Microstructural Properties.

6) Studied about the effect of Mixture of Organic Acids on different ratio of Surfactant Mixtures.

7) Studied about the effect of Adding Different Concentration of Organic Acid in Same Surfactant Mixture.

Tool used (Development tools - H/w, S/w) : Rheometer

Objectives of the project : Understanding complex phase diagrams of surfactants using rheology measurement as a tool and substantiation through microscopy/Static light scattering.

Major Learning Outcomes : Surfactant Phase Behaviour and Rheology concepts including flow and oscillation curves.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : It has an environment that allows for the use and growth of our established skills and qualities. It highlights our desire to work in a team-oriented workplace and talk about our work-style and try to word our answer so that it blends in well with the company's vision. Overall it was fun, exciting, innovative and challenging task during my project tenure which I enjoyed. Industrial experience isn't just about working on projects or other academics related stuff. It is about the etiquettes and manners to work in a corporate environment, how to manage ourselves formally, learning to live by the company rules and regulations and learning to behave accordingly. That switch of lifestyle is what defines industrial experience. Also the capability to think out of the box, practicality as well as problem handling efficiency are also required tools for a successful career.

The trained and experienced scientists over at HUL were extremely patient and understanding towards me in case I had any problem understanding a process taking place, just being in groups, listening to their conversations, deliberate meetings between the my mentor and other scientists did raise my intellectual levels and helped me to have a firm grasp over things happening and the day to day happenings in the plant. The concepts learnt previously actually started making sense. Working in this organization has helped me understand that in order to excel in what we do, we not only need to have great skills but also a good personality and right decision making ability. I will never forget my experience here.

Academic courses relevant to the project : Engineering Chemistry, Material Science, Chemical Process Calculations and Chemical Engineering Thermodynamics.

Name: K SANJEEV RAJ . (2016A1PS0538H)

Student Write-up

Short Summary of work done during PS-II : This project was taken up as a part of home care department of Hindustan Unilever Research Centre, Bangalore. Certain rheological aspects of various surfactant systems were measured. Predominant behavior of the surfactant systems was determined and Viscosity Flow Curve measurements along with Herschel Bulkley modeling were used to determine the yield stress. Single surfactant systems and mixed surfactant

systems of various concentrations were studied. Effect of counter ion on yield stress was also studied.

Tool used (Development tools - H/w, S/w) : Rheometer, Centrifuge, Vortex mixer, Overhead stirrer.

Objectives of the project : To study the basic properties of surfactants To understand the rheology and study viscoelastic behavior of various surfactant systems To determine the yield stress in commercially known single surfactant systems

Major Learning Outcomes : Learned to operate rheometer and explored a bit into rheology. Learned the operation of couple of other instruments.

Details of Papers/patents : N/A

Brief Description of working environment, expectations from the company : It's was overall a very good experience. A very good station for training in industrial research. Safety protocols were followed strictly

Name: PRAKHAR MISHRA (2016A1PS0570G)

Student Write-up

Short Summary of work done during PS-II : Zwitterionic surfactants have a strong interaction or complex formation with anionic surfactants in aqueous solutions.
Mixtures of anionic and zwitterionic surfactants have been studied and show strong synergistic behaviour through their superior surface activities such as lower surface tension and critical micelle concentration, in comparison to individual surfactants at the same concentration in aqueous solution.
The strong synergistic interaction between anionic and zwitterionic surfactants could be due to the strong electrostatic attraction between these molecules.
So we conducted experiments to determine this quantitatively

1) We studied 7-8 surfactant mixtures and calculated their interfacial surface tension using spin drop tensiometer with two oils (sunflower oil and model sebum).

2) Then we calculated the critical micelle concentration to determine the impact of electrolyte on anionic surfactant and anionic / zwitterionic surfactant.

3) We studied adsorption on fabric (cotton) of anionic surfactatnt in the presence of zwitterionic surfactant to determine the change in its adsorption rate.

4) We tried to study three phase contact angle of anionic and zwitterionic surfactant system but time didnt permit further analysis

Tool used (Development tools - H/w, S/w) : Spin drop tensiometer , Drop shape Analyser , PH meter , titration equipments ,

Objectives of the project : Study IFT and CMC for the surfactant systems – Anionic vs Anionic + Zwitterionic: Impact of zwitterionic surfactants on the adsorption of anionic surfactant on a cotton fabric. Three phase contact angle: understand the system and study LAS-ZI system for

Major Learning Outcomes : We learned from our experiments that addition of zwitterionic surfactant to an anionic surfactant enhances the surfactant properties by lowering the surface tension , lowering the critical micelle concentration and by enhacing the rate of adsorption on a

Details of Papers/patents : No papers published

Brief Description of working environment, expectations from the company : This internship was an enriching experience . This research centre here has up to date equipments and the research undertaken here is ground breaking. There is a proper connection between the co workers and our mentors are easily approchable.

Academic courses relevant to the project : The work which we did here needed strong grasp of the basic concepts of chemistry. Subjects related to this field : mass transfer , Engineering chemistry , Fluid mechanics , Numerical methods

PS-II Station : Hourglass Research , Mumbai

Faculty

Name: Pavan Kumar Potdar

Student

Name: AAKASH PILLAI . (2015B1AA0827H)

Student Write-up

Short Summary of work done during PS-II : Various activities like prior art searches, screening and categorization of patents, patent landscape analysis, technology scouting, patent infringement analysis, mapping own portfolio for impact analysis, mapping and generating EoUs for infringement analysis, creating patent digests and doing patent-ability searches were done as a part of this project. The different sections of a patent, life cycle of a patent, and the timeline of a patent were studied.

Using search strings to create suitable search strategies was done as a part of this project. Proficiency in using software namely, Orbit Intelligence, Google patents, MS Office, etc., was also achieved.

Tool used (Development tools - H/w, S/w) : Orbit, Google Patents and Microsoft Office

Objectives of the project : The objective of the project was to have a first-hand experience of the Patent Analytics work and how it impacts the intellectual property assets. It included performing prior art searches, screening and categorization of patents, impact analysis, techno

Major Learning Outcomes : Major learning outcomes included learning about patents and intellectual property, working of orbit, google patents and also included learning the

methodology of prior art searches, landscape analysis, impact analysis, technology scouting, patent digest a

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : The organization is a startup and the working space is a small office. Individual Working stations are allotted at the date of joining. The company provides all necessary amenities for the required work.

Academic courses relevant to the project : None

Name: DEVASHISH PANT (2016A3PS0220P)

Student Write-up

Short Summary of work done during PS-II : I worked on the various phases that an IP (mostly patents) goes through. Multiple projects on infringement cases, impact analysis, prior art search and digest generation were undertaken by me.

Tool used (Development tools - H/w, S/w) : Excel, Google Patents and Obit Intelligence

Objectives of the project : Get a basic idea of how the IP industry work. Basics of certain analysis tools used in the industry were also touched upon.

Major Learning Outcomes : Excel, Google Patents and Orbit Intelligence

Details of Papers/patents : Confidential data.

Brief Description of working environment, expectations from the company : The work environment is very encouraging. The whole office is very supportive. The company expects

you to be meticulous with your approach. You will mostly deal with patents. Developing a quick and detailed understanding of a patent is essential.

Academic courses relevant to the project : Not Applicable

PS-II Station : iB Hubs , Hyderabad

Faculty

Name: Chennupati R Prasanna

Student

Name: EDUMUDI VARSHITH NAIDU (2015B1A20887P)

Student Write-up

Short Summary of work done during PS-II : Business development of a Virtual Reality Product called iB Cricket

Tool used (Development tools - H/w, S/w) : iB Cricket Game equipment - HTC Vive Set and Oculus

Objectives of the project : Brand Management of iB Cricket

Major Learning Outcomes : Being proactive in every task you take up.
Working in a team and leading a team.
Drafting business proposals
Negotiations

Setting up the processes

Details of Papers/patents :

Brief Description of working environment, expectations from the company : A very healthy ecosystem with a beautiful vision of making India a Global leader in Industry 4.0 technologies where integrity is the utmost priority to everyone and the culture, quality of the team here is the key which is boosting the company to create wonders across the globe.

Academic courses relevant to the project : Organizational psychology

PS-II Station : IBM Security - Fiberlink , Bangalore

Faculty

Name: Vineet Kumar Garg

Student

Name: RUDDHI PRASAD PANDA (2016A7PS0021P)

Student Write-up

Short Summary of work done during PS-II : The project we did would fall under product development. It started out with knowledge transfer on Docker, Node.JS, the product architecture and workflow. The task given to us was based on using Ansible Tower APIs to configure/set-up remote machines or cloud.
The project was implemented in Node.js and its extensive library. Unit tests were written to ensure the robustness and integrity of the program.

Tool used (Development tools - H/w, S/w) : Ansible, Ansible Tower, Node.JS, POSTMAN, Docker

Objectives of the project : Integration of IBM Cloud Automation Manger and Ansible Tower

Major Learning Outcomes : Standard Coding Practices, Refactoring and revision of code, Collaboration using git, Documentation practices, Unit Testing, Globalization

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : DSA, OOP

Name: **SANTHATI K V PURUSHOTHAM (2016A7PS0025P)**

Student Write-up

Short Summary of work done during PS-II : Cam ansible integration, portal for testing department in ibm cps for testing purpose

Tool used (Development tools - H/w, S/w) : Node.js, django, ansible tower , postman, jython

Objectives of the project : Cam ansible integration, portal for testing department in ibm cps for testing purpose

Major Learning Outcomes : Node.js django automation using ansible optimization of scripts while executive collectively

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Work life balance and learnt some useful things good supportive environment

Academic courses relevant to the project :

Name: ADITYA MASOOR (2016A7PS0102P)

Student Write-up

Short Summary of work done during PS-II : I was allotted two major projects and two mini projects in the Order Management System squad of IBM along with some learning and value-addition courses.All of the projects were back-end related .
First Projects was designing and implementing a customised quartz scheduler for IBM -OMS Back-end for their internal communication. We had to start the project from scratch and do the testing as well .
After it's completion , I was assigned one project in new relic monitoring in which I was asked to convert the metric code to event code and then the detailed abstraction through NRQL .
Mini projects were improving the code for onboarding customer in sim_microservices and sorting integers of 1 gb data (only 128 mb ram can be used)

Tool used (Development tools - H/w, S/w) : Quartz Scheduler, Kong API, Hadoop ,Docker, Kubernetes, New relic tools

Objectives of the project : making code more efficient and customer friendly

Major Learning Outcomes : Improvement in debugging skills, learning new technologies ,softwares etc.

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

The manager was kind and gave projects based on our interests. You will learn about new softwares , technologies here but for the guidance from the senior engineers, you have to take the initiative.

Academic courses relevant to the project : DSA, DBMS

Name: NAVEEN H R (2016A7PS0718G)

Student Write-up

Short Summary of work done during PS-II : For the first month, we were asked to learn how to use tools like Docker, Kubernetes, Protractor and many others relevant to the IBM OMS. We were asked to understand and propose a solution individually for some of the problems associated with IBM OMS. In this process, we were made to learn about the working of Supply Chain Management and how IBM OMS works. I was assigned to the Watson Order Optimiser team, a sub-unit of Order Management System, Bangalore team. My work involved creating frameworks to aid in testing various components of WOO and automating the testing process. The automation process was done using IBM's UrbanCodeDeploy environment. Protractor was used to write tests for WOO components known as Result Explainer and frontend UI. Alongside working on our projects, we were asked to complete certain IBM training courses and obtain certifications for the same.

Tool used (Development tools - H/w, S/w) : Protractor, NPM, Eclipse, Allure Reporter, Selenium, Company provided laptop(Mac)

Objectives of the project : Automate testing of Result Explainer and frontendUI

Major Learning Outcomes : Usage of software tools like Protractor, NPM and functioning of Supply Chain Management.

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : Work environment is great. Flexible work timings but have to get the work done on time. Choice of project was given to us. Team members are really helpful.

Academic courses relevant to the project : None

PS-II Station : IBM Security - Fiberlink , Pune

Faculty

Name: Sonika Chandrakant Rathi

Student

Name: GURIJALA SREEJA . (2016A7PS0023H)

Student Write-up

Short Summary of work done during PS-II : The first Aim is to implement Sign in with Apple to apps and Websites.Cloud Identity Connect is an IBM owned identity governance Application written using "Java EE 8".It provides user/ corporations ,for their business,with various identity access management functionality,services and several third party services such as linkedin,google,facebook etc are consolidated into this application.Cloud Identity Connect currently serves no functionality for AppleIdentity as prior to the "Sign in with Apple 1.0 framework",Apple ID did not support this feature,but now with the release of this framework it is possible for users to sign into the third party applications with their AppleID.Corporations and Online Services across the world are integrating "Apple Identity" feature onto their respective platforms,so is IBM

ElasticSearch is a database that stores,retrieves,and manages document-oriented and semi-structured data.Cloudant is an IBM software product,which is primarily delivered as cloud based service.Cloudant is a non relational distributed database service of same name.Second Aim is to check how efficient ElasticSearch is over cloudant like how fast indexing can be done on elasticsearch,how fast querying can be done from elasticsearch as per requirements.

Tool used (Development tools - H/w, S/w) : Elastisearch,Kibana, postman,gradle

Objectives of the project : Efficiency of elastisearch over cloudant,sign in with apple implementation on local flow

Major Learning Outcomes : Usage of cradle,softwares like elastisearch,docker,unit testing

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : DBMS,OOP

PS-II Station : IDeaS - SAS - Software Development , Pune

Faculty

Name: Sonika Chandrakant Rathi

Student

Name: AKAASH MOHAN SAXENA . (2015B1A80831H)

Student Write-up

Short Summary of work done during PS-II : The work involved automation of video upload process. This was achieved by utilising Javascript, Bootstrap, REST Api and Spring JDBC and MySql to create a CRUD based system that takes input from user for the video links uploaded on secure cloud storage, store the links into database and modify them and later integrate them automatically into website as per their year,quarter and location

Tool used (Development tools - H/w, S/w) : Eclipse, Tomcat

Objectives of the project : Automation of video upload process for company's webapp

Major Learning Outcomes : REST Api, MySql, Spring JDBC , Javascript, Bootstrap

Details of Papers/patents :

Brief Description of working environment, expectations from the company : There was a work/life balance for interns. Mentors and infact employees of company's are supportive. The project in itself are a great learning curve for beginners or people not from CS background but wont be much of a challenge for CS people.
Academic courses relevant to the project : OOPS, APIs

Name: PANDE ATHARVA RAVI (2016A8PS0345G)

Student Write-up

Short Summary of work done during PS-II : I was given the task of integration of Google Analytics with the web application of one of the products of the company. This would help the developers and the support team in understanding the client behavior. I also worked on development of Auditing Mechanism for the application which will track the modifications done by the user to the data stored in the database.

Tool used (Development tools - H/w, S/w) : Ember JS, SQL

Objectives of the project : Integration Of Google Analytics with a Web Application and Auditing

Major Learning Outcomes : Learnt About: Ember JS, SQL, Java

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment of the organization is extremely pleasant. The organisation is extremely helpful in assisting it's interns to learn new technologies and concepts.

Academic courses relevant to the project : CS F111 : COMPUTER PROGRAMMING

PS-II Station : IFB Industries , Goa

Faculty

Name: Narayan Suresh Manjarekar

Student

Name: VISHNU MADHUSUDAN (2015B2AB0819P)

Student Write-up

Short Summary of work done during PS-II : I was a part of the IoT implementation team at IFB Industries. The plant manufactures washing machines. My project concerned the

development of a real time, automated and centralised data monitoring and processing setup for the washing machine drum production line. The purpose of the project was to gather production and operator data continuously and store for further analysis on a dashboard. The project was envisaged to be an important step for in-house Industry 4.0 implementation.

I was responsible for developing an automatic data logging configuration on a Mitsubishi PLC using ladder programming. I also developed a python script for a backend cron job to import data from the PLC and process it to give out the KPIs of the drum production line and store the data on MySQL database. My contribution to the project consisted of two stages-prototype stage where the proof of concept was demonstrated and then the actual deployment stage.

Tool used (Development tools - H/w, S/w) : Hardware: Mitsubishi Q-series PLC, proximity sensors and other electrical components
Software: Mitsubishi PLC software tools for ladder programming and data logging (GX Works and Data Logging Configuration Tool), Jupyter Notebook for Python scripting, MyS

Objectives of the project : To develop a real time, automated and centralised data monitoring and processing setup for the washing machine drum production line

Major Learning Outcomes : 1. PLC programming and working of PLCs and other electrical components
2. Basic Python scripting especially use of Pandas library in handling data

Details of Papers/patents : none

Brief Description of working environment, expectations from the company : The working environment is one of the best I have experienced. My mentors and other seniors at IFB are extremely receptive and supportive of interns' ideas and their work.
Academic courses relevant to the project : Mechatronics and Automation, Computer Programming

Name: NAVEEN HEGDE . (2015B5AB0692H)

Student Write-up

Short Summary of work done during PS-II : Built an Augmented Reality App for IFB. The Augmented Reality App was created so that users could browse all the products and select any product to view it in 3D downloaded from cloud. Users could move, rotate & scale the 3D model and also see the Dimension in 3D. 3D & 2D features were also implemented. Users could also buy the product within the app using dynamic prices.

Tool used (Development tools - H/w, S/w) : Unity, 8th Wall, C#

Objectives of the project : Build an Augmented Reality App for IFB

Major Learning Outcomes : Full Stack App Development, Android App Development, iOS App Development, Game Development

Details of Papers/patents :

Brief Description of working environment, expectations from the company We were offered autonomous control over the progress of our projects and were offered the required resources needed to complete the same. Total control meant we could learn the in & out of processes involved in development of full life cycle of product. We were given enough opportunities to get involved in other projects of our interests too. All in all, we learnt what it takes to build a product from scratch to completion.

Academic courses relevant to the project : Data Structures & Algorithms, C++, Object Oriented Programming

Name: ABHINAV SINGH (2016A4PS0311P)

Student Write-up

Short Summary of work done during PS-II : The project allotted to me was "Runout Testing Automation and Data Acquisition System" . In the project i had to design a system which would automatically collect data from the part and store it in an online server from where the data can be retrieved as and when needed. The work was broken down into 3 parts. The first one was the design of the fixture using which the data collection points will be detected. The fixture components of the shaft holder , the positioner and the clamps were designed strategically so that the data from the part can be easily acquired. Also the design was made in such a way that there is an ease for placement and removal of the part. The second part of the project was to design the data collection system. For this the sensors were selected that would be helpful for the data collection process. Also the PLC was selected and the coding was done for the control of the system.the third part was the data storage. The components and the coding for the database and the online cloud based FTP server was done which would store the data and would allow the company to access it when needed

Tool used (Development tools - H/w, S/w) : Fusion 360, GT Designer3, MySQL

Objectives of the project : The objective of the project is to develop an automation system which employs 100% testing of the parts and stores the data which can be analysed in the future

Major Learning Outcomes : Fixture Design, PLC Programming, SQL Database formation, FTP Server Setup

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment in the company is very professional and work focused. everyone in the company is always accessible for help and are ready to help with your problems. Almost all the necessary resources were provided by the company for my project and any other needed was tried to be met if possible. The mentors took reviews regularly to make sure we were on the right track and provided much needed guidance regarding the problems from their real world working experiences which added to our experience and thus made our project better. In all I would say

that the company is great and very helpful and you would be free to show your talent in the project that you have been allotted.

Academic courses relevant to the project : Mechatronics and Automation, Machine design and drawing

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Name: SAMANVITH MULPURI (2016A4PS0352H)

Student Write-up

Short Summary of work done during PS-II : Mine was a group project, we worked on the transportation bolts of a washing machine. We collected the same component used by different companies across their variable models and studies their effectiveness in their job. Then made a 3D model for IFB machine and then fabricated the component and tested it.

Tool used (Development tools - H/w, S/w) : Solid works, 3D printer, Lathe and drill machines, hacksaw and file, shipping tests equipment.

Objectives of the project : The transportation bolts used in the IFB washing machines is same for 6 and 8kg machines and the load in 8kg machines is too much for them to bear and the damaged during testing, incurring a huge loss to the company.

Major Learning Outcomes : We learnt about the components and working of washing machines, the quality tests done to ensure the same and the way the development of a particular component works in the R&D.

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : The employees are supportive and friendly.
Academic courses relevant to the project : CAD, Mechanics of Solids, Mechanical design and drawing, Production Techniques.

Name: ADARSH R DAS (2016A4PS0713G)

Student Write-up

Short Summary of work done during PS-II : Studied the basics of machine learning . Used this concept to train a model on collected data to predict the variables required using python.

Tool used (Development tools - H/w, S/w) : Machine Learning, Jupyter notebook, Python

Objectives of the project : Predicting the optimal drying time of a washer dryer machine using machine learning

Major Learning Outcomes : Machine learning basics, Python basics , Data study

Details of Papers/patents : .

Brief Description of working environment, expectations from the company : Helpful mentors and colleagues. Efficient working expected

Academic courses relevant to the project : .

Name: SHIVANSH ASTHANA (2016ABPS0318P)

Student Write-up

Short Summary of work done during PS-II : Established a Data acquisition system for production lines using PLCs and developed a web based dashboard with screen friendly aperture for various devices and connected them over a single IoT network making a one stop data station.

Tool used (Development tools - H/w, S/w) : PLCs, Django, Xampp

Objectives of the project : To fullfill the data gathering step in IIoT

Major Learning Outcomes : Industrial Automation, Full stack development

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Mechatronics, OOP

Name: GOPINATH CHAKRABORTY (2017H1410060G)

Student Write-up

Short Summary of work done during PS-II : Quality analysis of inlet filter of magnetic feed valve of both Top Loader and Front Loader Wahing Machine.
Collecting the data regarding the component failure happenning in different parts of the washing machine to analyze the failure rate of the inlet magnetic valve.
Variation in failure as per the geographic locations.
Analysis of water quality and product life cycle.
Analysis of the different filter geometries to improve the quality.
Geometry analysis was done by Modelling CFD-DEM Coupled analysis on the different filter geometries present.A vitrual environment where dirt particles are passed along the water in the fluid domain of the filter using simulation in Star CCM+.Particle count is the main parameter to find the clogging rate of the filter geometry.Finally improving the overall quality by modelling a new prototype of the filter geometrywhich will have an extended life cycle.

Tool used (Development tools - H/w, S/w) : Autodesk Fusion 360,Autodesk Inventor,Star CCM+,MS Excel.

Objectives of the project : Quality improvement of the current filter geometry.

Major Learning Outcomes : Learning Discrete Element Method(DEM),CFD-DEM couple flow,data analysis using excel,pareto analysis,professionalism,working in a team.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : IFB has a vibrant atmosphere to work in.People are always eager to help out in any problems that I faced.A positive environment which brings the best out of an employee.

Academic courses relevant to the project : product Design,CFD

PS-II Station : IMI Mobile R&D , Hyderabad

Faculty

Name: Y V K Ravi Kumar

Student

Name: SHARAT PATIL (2016A7PS0075G)

Student Write-up

Short Summary of work done during PS-II : Back-end development of new Natural Language Processing Nodes (Intent and Entity) and experimenting with methods to auto select algorithms based on data

Tool used (Development tools - H/w, S/w) : Java,Python,Snorkel,Flask

Objectives of the project : 1. Building of new NLP nodes for intent and entity recognition 2. Create an heuristic for Auto selection of Algorithm for Intent Node 2.

Major Learning Outcomes : 1.software engineering process 2.Machine Learning and Meta learning 3.Synthetic data generation using snorkel 4. API using flask

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Software engineering,DSA,Machine Learning, OOP

PS-II Station : IMIdigital R&D , Hyderabad

Faculty

Name: Y V K Ravi Kumar

Student

Name: URITI PAVAN KUMAR . (2016A7PS0073H)

Student Write-up

Short Summary of work done during PS-II : GUI DESIGN & BACKEND INTEGRATION

GUI design includes planning and designing the architecture of the components in the application developed.

Backend integration involves making the data transmission in application using the required protocol and synchronizing them perfectly with GUI.

Tool used (Development tools - H/w, S/w) : NETBEANS,WIRESHARK

Objectives of the project : The developed Application is IMS/RCS client with supporting SMS, CHAT and File-Sharing using SIP and MSRP protocol and audio and video using RTP .

Major Learning Outcomes : Learnt many protocols like sip,msrp and Rtp

Details of Papers/patents : Not known

Brief Description of working environment, expectations from the company : The work environment is very friendly.Mentor and Manager are very supportive.The assigned Components should be completed on time.

Academic courses relevant to the project : Computer networks,Object oriented program

PS-II Station : Indian Institute of Petroleum , Dehradun

Faculty

Name: Santosh Khandgave

Student

Name: RAKSHIT GULATI (2016A4PS0417P)

Student Write-up

Short Summary of work done during PS-II : Exploratory work on the interaction of microwaves with sparks from a spark plug. Various experimental setups were put up in place in a logical manner, so as to observe and study multiple-point plasma generation by the above mentioned interaction. Many of these setups needed custom hardware, which were designed by me and fabricated under my direct supervision as well.

Tool used (Development tools - H/w, S/w) : Ignition Coil, Spark Plug, Microwave, Driller, Shearing Machine, Hand Cutter, Grinder, Soldering Machine, DC Power Supply.

Objectives of the project : To observe and study the generation of multiple-point plasma.

Major Learning Outcomes : 1.) Direct exposure of spark to microwaves won't produce plasma. 2.) There was some corona discharge related problems in one of the setups, the solution to which I devised, and it worked.
3.) Designing and fabrication of different hardware needed for sett

Details of Papers/patents : None.

Brief Description of working environment, expectations from the company : Very Supportive staff over all, be it the Project Assistants to Senior Scientists.

Academic courses relevant to the project : Production Techniques-I, Production Techniques-II, IC Engines, Mechanics Oscillations and Waves, Thermodynamics, Electrical Sciences.

PS-II Station : Infinera , Bangalore

Faculty

Name: Satya Sudhakar Yedlapalli

Student

Name: SARANSH TRIPATHI (2016A8PS0409P)

Student Write-up

Short Summary of work done during PS-II : The main project of mine was based around verification of the IP's . First the verification was based on System Verilog so that all the concept are refreshed and than we adopted the UVM, the industrial standard. I was also given a formal training under the instructor regarding this. I also worked on few side project like writing a perl script for verification of port connectivity and a python script for automation of workq

Tool used (Development tools - H/w, S/w) : System Verilog , UVM , perl , python

Objectives of the project : Verification of a dual port memory

Major Learning Outcomes : The whole flow of making of any chip , the guidelines and the approach towards verification of any module or IP.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Great working environment and the most of the team is made up of Bitsian's only. You will be constantly mentored and everyone involved would be pretty approachable. Flexible working hours as long as you are meeting the deadline of the project . You can learn pretty much everything there regarding the whole flow of creation of any chip

Academic courses relevant to the project : Advd , Comp Arch. DD

PS-II Station : InMobi- Business Analyst , Bangalore

Faculty

Name: Vamsidhar Ambatipudi

Student

Name: DHRUV AGARWAL (2015B2A10730P)

Student Write-up

Short Summary of work done during PS-II : In Wadogo, my work primarily focuses on handling supply side partnership with various direct publishers, indirect publishers, agencies etc. It involves handling a diverse set of supply partners across the globe, and providing them with appropriate campaigns, ensuring the maximum revenue burn with quality traffic and profit margin. For providing quality traffic at the required scale, I optimize the publisher traffic, using daily reports through different analytical tools.

Tool used (Development tools - H/w, S/w) : M.S. Excel, JIRA, Internal Tools, Appsflyer

Objectives of the project : Hunting for new supply partners, and maximizing the revenue and margins for existing supply partners for Inmobi's third party affiliate marketing channel(wadogo)

Major Learning Outcomes : Inmobi has given me an amazing opportunity to learn and grow, dealing with clients across the globe. Working with different teams has helped me evolve as a team player and inculcated people management skills in me.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Amazing environment, great colleagues and seniors. Everyone is very eager to help. An extremely collaborative learning experience.

Academic courses relevant to the project : Majorly requires M.S. Excel

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Name: Astitva Agrawal (2016A1PS0754G)

Student Write-up

Short Summary of work done during PS-II : Created, Optimized and maintained trackers that captured the entire APAC business. Optimized work output of team and reduced work input by ~50 man-hours/day.

Tool used (Development tools - H/w, S/w) : Excel, Google Sheets

Objectives of the project : Daily reporting and making and maintaining trackers

Major Learning Outcomes : Improved soft skills,
Talked directly to clients,
Made trackers,
Learned Excel

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : -

Academic courses relevant to the project : POE; Maths 1,2, & 3

Student Write-up

Short Summary of work done during PS-II : Part of the Business Insights Team wherein I worked to generate insights for the programmatic Ad delivery team. I created and maintained multiple trackers, dashboards and cadence reports. Got Hands-on experience of applying Analytics in optimisation. Also, my day to day job was crude analytics which was completely different from that written in PSD's description.

Tool used (Development tools - H/w, S/w) : Advanced MS Excel, Python(for data analytics), SQL, Dashboarding tools

Objectives of the project : Generate insights and analyse data to support multiple teams.

Major Learning Outcomes : Hands on analytics experience, Upskilled in all the BI Tools, Dynamics of AdTech industry and working in an Agile environment

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Probably the best work environment and flat cultured organisation. Young and cooperative teammates. You are given ownership of tasks and your opinions are heard out on the table.
Academic courses relevant to the project : Probability & Stats, Optimisation

Name: SYED UBAID ISHAQ (2016A4PS0317G)

Student Write-up

Short Summary of work done during PS-II : 1.Performance campaign management and optimization
2.Revenue tracking

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3.Programmatic Advertising

4.Fraud Management

5.Attribution

Tool used (Development tools - H/w, S/w) : Excel

Objectives of the project : Fraud Management

Major Learning Outcomes : Learnt Fraud Management

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : No

Name: AVIRAL SINHA (2016A8PS0306P)

Student Write-up

Short Summary of work done during PS-II : My role in the company was that of an Analyst. My work included preparation of daily reports to be sent out to publishers and assist Partner Managers in analyzing trends of various clients at regular intervals. My work also included the migration of supply inventory.

Tool used (Development tools - H/w, S/w) : In-house softwares, Excel, Python, SQL

Objectives of the project : Upscaling of Revenue and Optimization of various Accounts

Major Learning Outcomes : Gained dexterity in Excel, SQL and other in-house software. Developed a holistic understanding of the Ad-tech Industry. Learnt how to analyse reports such that they are better suited to the company's requirements.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Amazing working environment with friendly teams. People here are really good and helpful. A very collaborative approach is followed in the team to get optimal results. Seniors are quite eager to help and mentor the newbies. One great thing is that you are given ownership for the work you handle and you are free to experiment things.

Academic courses relevant to the project : Probability and Statistics

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PS-II Station : Intel India Technology , Bangalore

Faculty

Name: Swapna Kulkarni

Student

Name: Shantanu Mishra (2015B4AA0681H)

Student Write-up

Short Summary of work done during PS-II : Developed a loadable kernel module consisting of a generic PCIe driver for testing device's capabilities like Function Level Reset, Message Signaled Interrupts, and I/O Virtualization and created user and test applications for communicating with the driver through IOC and sysfs.

Tool used (Development tools - H/w, S/w) : SW: C, Perl, Make, GDB
HW: FPGA, ASIC

Objectives of the project : To create a loadable kernel module consisting of a generic PCIe driver

Major Learning Outcomes : Kernel Module Development

Details of Papers/patents :

Brief Description of working environment, expectations from the company : • Collaborated with team validating subsystem responsible for Virtual Switch Scaling in network applications.
• Developed a loadable kernel module consisting of a generic PCIe driver for testing device's capabilities like Function Level Reset, Message Signaled Interrupts, and I/O Virtualization.
• Designed Direct Memory Access APIs for runtime memory allocation for mapping to the subsystem
• Interfaced user and test apps with the above kernel module through IOCTL and sysfs

Academic courses relevant to the project : Operating Systems, Computer Architecture, Data Structures and Algorithms

Name: Rudresh Gupta (2016A3PS0160G)

Student Write-up

Short Summary of work done during PS-II : RTL integration of PCI-Express Subsystem in IoT Accelerator.

Tool used (Development tools - H/w, S/w) : Synposys coreTools, Lint and CDC GUI

Objectives of the project : Effectively integrate PCI-express subsystem in the SoC

Major Learning Outcomes : The whole flow and working of RTL integration of a component in SoC

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The work ranges from hardware to software related. The working environment is encouraging for someone interested in core electronics.

Academic courses relevant to the project : Digital Design

Name: SIDDHARTH T . (2016A3PS0201H)

Student Write-up

Short Summary of work done during PS-II : RTL integration of Intellectual Properties into System on Chip. Additional work on Quantitative memory Selection Methods.

Tool used (Development tools - H/w, S/w) : Verilog, Verdi, Intel propreitary tools

Objectives of the project : Integration and follow up with functional verification changes.

Major Learning Outcomes : Modern Systems and prevalant protocols.

Details of Papers/patents : Conference paper on "Quantitative approach to SRAM Selection Methods" in Intel's private conference

Brief Description of working environment, expectations from the company : Approachable and open employees, counter-intuitively hardworking environment.

Academic courses relevant to the project : Communication Networks, Some part of Microprocessors course. (you will only work with communication ports, not processing architectures.)

Name: Rahul Govindan (2016A3PS0282H)

Student Write-up

Short Summary of work done during PS-II : Spent the first few months working on a project which was aimed at increasing the debug capabilities of FPGA prototyping by capturing data and storing it at user defined points. Work included writing modules in system Verilog for the capture and propagation of the trigger and movement of data on a multi-FPGA platform using AVST interfaces.
The next 3 months, I worked on the board bring-up of a project, which included file list generation, elaboration and verification of the project and removal of gated clocks and other non-FPGA friendly components.

Tool used (Development tools - H/w, S/w) : Synplify premier, Quartus, Dve

Objectives of the project : Improving the debug capabilities of FPGA protyping

Major Learning Outcomes : Learnt about the processes involved with board bring-up of a project. Also improved my knowledge of system verilog and learnt things like using inout ports, macros ets.

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : FPGA lab course, Digital Design

Name: MEDHA PRANEETH REDDY M . (2016A8PS0436H)

Student Write-up

Short Summary of work done during PS-II : As a part of my PS-2 project I was involved in testing of the automation software used in the Intel Factories across the world manufacturing chips. I had also developed new features for an automation system. While developing new features, I have majorly worked with developing better User Interface incorporating the new requirement by the customer. At the interface level I also had to design effective algorithms to deal and modify the data that was being given as the input. This later had to be passed on to the Database. Communication channel, had to be established between the User Interface and the Database, was also developed as a part of the project. I had to design the functions for transferring the data that the user inputs in the User Interface to the Database.

Tool used (Development tools - H/w, S/w) : C#, .NET, Prism

Objectives of the project : Develop new features in the applications used by the customers, as per the business requirements

Major Learning Outcomes : C#, Software Development Life Cycle, Software Testing, Prism, .NET Framework, Design Patterns for developing User Interfaces(MVVM)

Details of Papers/patents :

Brief Description of working environment, expectations from the company :There are a lot of learning opportunities at Intel. The team was very helpful in achieving the business goals.

Academic courses relevant to the project : C Programming, Data Structures and Algorithms, Object-Oriented Programming

Name: G ABHIJITH . (2016A8PS0891H)

Student Write-up

Short Summary of work done during PS-II : Worked on pre si validation of radio ip part of data communication chips produced by Intel.

Tool used (Development tools - H/w, S/w) : System verilog, vcs, Perl , vhdl , synopsis tool

Objectives of the project : Learn CPRI interface part of 5G networks and work on soc validation of it

Major Learning Outcomes : Learnt CPri interface part of 5G networks and worked on soc level validation and design

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : The working environment was up to my expectations and the people around were helpful and I have learnt a lot from them

Academic courses relevant to the project : Digital design, computer architecture , analog digital vlsi design

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Name: AGARWAL APOORVA VINODKUMAR (2017H1230229P)

Student Write-up

Short Summary of work done during PS-II : The spec file is written using tcl and clock tree design. This spec file is dumped into clock building tool. The tool automatically does the placement and routing. After this, manual routings is performed for the input and outputs, because tool performs routing only between the two cells. And reach the targeted skew. Here the skew is reduced to 94% of the initial value

Tool used (Development tools - H/w, S/w) : ICC2, Clockbuilder

Objectives of the project : The objective of this project is to apply different design constraints at synthesis and physical design stages to meet the required design requirements. The constraints given in this project are: ▪ Macro placement, hard blockages at floor plan stage.

Major Learning Outcomes : The project mainly involved the proper design of the clock distribution network ensuring that critical timing requirements are satisfied with minimum skew and latency.

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : The working environment in Intel is excellent. It has a great work life balance. The learning experience is also good. The team is very supportive and helps a lot.

Academic courses relevant to the project : VLSI Design, Advanced Vlsi Design

PS-II Station : JDA Software Solutions , Bangalore

Faculty

Name: Vineet Kumar Garg

Student

Name: ANURAG SHRIVASTAVA . (2016A2PS0583H)

Student Write-up

Short Summary of work done during PS-II : Developed a regression testing suite for unit testing of SAP adapter with the help of JAVA and FitNesse, the suite included connections to SAP, API calls to create , update and delete the data, to fetch the data and to pass it to the adapter and the taking it into a message broker and validating the messages.
Bug fixes and implementation of new features in other projects.

Tool used (Development tools - H/w, S/w) : Apache activemq, JAVA, FitNesse, Junit, Maven, Mule anypoint studio

Objectives of the project : To develop a testing suite for unit testing of SAP integration adapter.

Major Learning Outcomes : Better working with bigger code bases

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : Good working environment, quite flexible office timings .

Academic courses relevant to the project : NA

Name: SHREYA DEEP . (2016A3PS0837H)

Student Write-up

Short Summary of work done during PS-II : Project 1. The installation process of the WMS environment is a very pain staking and time consuming task. For employees, it is very important to cut down on time wastage, as it adds to the productiveness of the company. Hence, the automation of the installation process was the absolute need of the hour. Project 2. The latest version of the JDA Windows WMS software has a lot of issues with its UI, which have to be resolved before releasing the new version to the clients for further use.

Project 3. With any software, in its initial stages, there are a lot of issues that must be resolved. Finding those errors is a very important task, as these errors, if not escalated and brought to the attention of the concerned parties, may then further be incorporated into the final build of the software. This would lead to the customers using this faulty edition of the software, and dealing with inconveniences. This reduces customer value proposition, and can even lead to loss of customers due to a dissatisfying experience. Hence, it is extremely important to test the software well and report all the errors, so as to ensure effective performance of the software, as well as avoiding failures in the initial stages of the build and avoiding expensive amendments in the later stages of development.

Tool used (Development tools - H/w, S/w) : Activex, ANT, RedPrairie, Visual Studio, Git Bash, Perl, Java development kits, Python, SourceTree, SQL, Eclipse, Git bash, TCCLE, AppServer, windows batch script, Mongodb Compass, Postman, JIRA, Putty, WinSCP, Oracle18, LINUX, InstallAnywhere, SQL server

Objectives of the project : Project 1: Each repository takes quite a while to build, each taking an average of 25 minutes. Moreover, every build step encountered various problems, such as the master versions not being correct, or the Java version not being the right one.   Hence the

Major Learning Outcomes : Improving on coding skills(Java and Python), building databases on DBMS like SQL developer and SQL server, better understanding of the company product, development of the product and its features, warehouse management strategies and workflow, learning the

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Supply chain management, Object Oriented Programming, Data Structures and Algorithms.

Student Write-up

Short Summary of work done during PS-II : Worked on developing tools to help in automated API and adapter testing. Continuous integration (CI) and continuous delivery (CD) pipeline development for cloud deployment of JDA connect on Azure.

Tool used (Development tools - H/w, S/w) : Anypoint Studio,Python,Groovy,BatchScript

Objectives of the project : Developement of an Integrated and Automated environment for JDA Connect

Major Learning Outcomes : Work flow in a workplace environment

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The workplace was very employee-friendly with flexible timings and people in the team had apt knowledge of how the project, JDA Connect, was developed and worked in its entirety.

Academic courses relevant to the project : Object Oriented Programming, Network Programming

Name: AKASH S PATIL . (2016AAPS0822H)

Student Write-up

Short Summary of work done during PS-II : During my PS-2, I worked on 2 separate projects. First project was to extract company data from remote servers by hitting JIRA rest API's. We then conducted some algorithmic analysis on the data using python. Second project was to create a machine learning model to predict the time taken to complete different software

problems and issues faced by employees and customers. Several parameters like severity, issue type etc were considered. I was able to complete the projects with desirable results and learnt a decent amount from the experience.

Tool used (Development tools - H/w, S/w) : ML python libraries(scikit-learn, numpy, pandas), python, Jenkins, JIRA rest API's

Objectives of the project : Extraction and analysis of company data, ML model to predict time taken to solve issues.

Major Learning Outcomes : Learnt to work with API's and create ML models.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Working environment was decent. Initially, I was given a bunch of side projects to work on, which I was able to complete easily.

Academic courses relevant to the project : Machine learning courses.

Expect work along lines of testing, data collection, data cleaning etc., in case of most departments.

Academic courses relevant to the project : None.

A few OOP and database concepts will inevitably be used as in any soft dev role.

PS-II Station : JDA Software Solutions , Hyderabad

Faculty

Student

Name: BHAVIK PAREEK (2016A1PS0767P)

Student Write-up

Short Summary of work done during PS-II : Project consisted of making a Sales Dashboard using React.js. The dashboard consisted of Charts and visualizations reflecting the sales data which was fetched from a oracle database. Mostly the project work was comprised of frontend development which used React.js libraries and bootstrap except for the backend part where a REST api was made by using Node.js and express.js library.

Tool used (Development tools - H/w, S/w) : React.js and node.js

Objectives of the project : Sales Dashboard

Major Learning Outcomes : Front end development and some operations in the Back end.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment is really friendly and the team members help you in every step of the way.

Academic courses relevant to the project : nothing in particular

Name: BODIKOLLA AASHISH REDDY . (2016A3PS0290H)

Student Write-up

Short Summary of work done during PS-II : My project was to develop a microservice for Assortment Planning which generates 7 CSV's in GCP and appends the computed data to those CSV's when a client requests data and also to add an export job which gives error message about the status of the task. Also, I worked on automating test cases.

Tool used (Development tools - H/w, S/w) : Java, Google cloud Platform, Protractor, Selenium

Objectives of the project : Microservice development and Automation

Major Learning Outcomes : Springboot, Angular 7, JavaScript, Automation

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Object Oriented Programming

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PS-II Station : John F Welch Technology Center (GE) , Bangalore

Faculty

Name: Shashank Tiwari

Student

Name: AYUSHMAN DWIVEDI (2015B1A40880P)

Student Write-up

Short Summary of work done during PS-II : Complete geometrical markup of 3 major powerplant projects being taken up by the company (GE), came up with novel methodologies using VB Script to support the engineering team and reduce the engineering time it would've taken for requisite domain work. Working as a support base to local R&D team as well as international engineering teams to make headway in the field of Powerplant automation.

Tool used (Development tools - H/w, S/w) : AVEVA E3D, MS VB Script

Objectives of the project : To understand and put to use, the principles used in GA of Boiler Ducts and requisite appraisal of novel methodology devised to aid in the same

Major Learning Outcomes : Understood and had the opportunity to experience, first hand, the importance of collaborative work and team-play. I also gained technical proficiency in a variety of senses, software - AVEVA E3D, Microsoft VBScript, etc, and broadened domain knowledge.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Working environment is conducive to new ideas and innovations made are duly encouraged and provided suitable ground. Co-Workers are helpful to rule out any and all doubts and discrepancies in the work methodology. Meritocracy is evident in the day to day proceedings of the company and interns are encouraged to make full use of the opportunity at hand, by involving in extra-curricular activities, apart from work.

Academic courses relevant to the project : Computer Aided Design, Power Plant Engineering, Applied Thermodynamics

Name: KETAN PALIWAL (2015B2A40720G)

Student Write-up

Short Summary of work done during PS-II : I worked on Particle simulations in simple pipe geometries and did sensitivity analysis. I have suggested changes in burner geometry according to our igniter and got tested, validated through experiments.

Tool used (Development tools - H/w, S/w) : ICEM CFD, Ansys-fluent

Objectives of the project : CFD Simulations in Pipe Geometries

Major Learning Outcomes : Presentation Skills, Meshing Software, Simulations Software

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Computational Fluid Dynamics

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Name: **DHEBAR JEET NEHAL (2016A4PS0402P)**

Student Write-up

Short Summary of work done during PS-II : To start of, the first task was to understand the existing methods and technologies used for gas turbine rotor damping and the basics of working of gas turbine engine and provide a holistic view of existing scenario in this regard with identification of research gaps. Subsequently, finalization of an idea which can be developed into a product used for rotor damping was done after all the considerations. Finally, model setup and various computer analysis and simulations were performed to get the results of approximate damping achieved by using that idea which were converted into interpretable graphs and tables with a little bit of design optimization to validate the concept and set a reference for physical tests

Tool used (Development tools - H/w, S/w) : 1. Siemens NX
2. ANSYS APDL

3. Some proprietary software developed by the organization themselves for various analysis

4. MS Office

Objectives of the project : The aim of the project to fill an existing research gap in the field of gas turbine rotor damping and develop a new product that can be used in the machines to provide rotor damping

Major Learning Outcomes : A lot of knowledge about the basics of gas turbine engine working in real conditions and design philosophy was gained. Hands on experience with computer software for modelling and analysis. Concepts of strength of materials, finite elements analysis and v

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : In my opinion, this company has one of the best working environments. You are provided all kind of freedom as long as you are completing the work responsibly and in time. Great office campus with lots of facilities. The people here are really helpful and would happily take time out to guide you through your task.

Academic courses relevant to the project : Computer aided design, Primemovers and fluid machines, Mechanical vibrations

PS-II Station : JP Morgan Chase - Technology , Bangalore

Faculty

Name: Akshaya G

Student

Name: HARSH VARDHAN AWASTHI (2015B2A80807P)

Student Write-up

Short Summary of work done during PS-II : My project that is, development of Tax Engine for statutory corporate tax payments is one of the most vital projects for the biggest bank in United States, JP Morgan chase. The basic goal of the project was to unify the payment portal already existing in India, ILAS with the a unified payment portal which is already serving 4 nations. At mid-way of the project that is till September end, the progress I achieved was that of being done with the architecture of the project and identifying the components where we would apply the required technologies. The development of Transformers (Serialization and Deserialization) was done so that basic conversion from JSON to POJO (Plain old Java Object) and back. At the time of me leaving the project due to the end of my internship, I find myself done with about 60% of the project. This 60% project has been tested individually to test if the code which has been written works well. The corporate tax system henceforth developed would work in conjecture with some other countries too.

Tool used (Development tools - H/w, S/w) : Spring Boot, Spring Integration, IBM MQs.

Objectives of the project : Migration of ILAS to TE for statutory payments and providing further enhancements

Major Learning Outcomes : Development of high and low level architecture according to the requirements. Learning Java Development Framework, spring and using it on a live project.

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : OOP

Name: MOHIT JAISWANI (2015B3A30622P)

Student Write-up

Short Summary of work done during PS-II : Project 1: Developed the backend of the project using spring boot. Used JDBC template to fetch the data from the database. For frontend react and redux were used. Project 2: Used spring-boot and hibernate to fetch data from the database and created JSON objects. Later the objects were pushed to private cloud using S3 api and a POC was done using APACHE drill that could further help the company during audits and reference.

Tool used (Development tools - H/w, S/w) : Java, Spring, Hibernate, React, Databases

Objectives of the project : Project 1: To develop a web portal which helps to coordinate between different departments of trade. To reduce manual updating of the server details and automate the process using spring-boot, react, JDBC template etc. Project 2: To reduce the cost incurred.

Major Learning Outcomes : Complete Web development and deployment

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : Nice work culture and flexible timings

Academic courses relevant to the project : DSA
OOP

Name: BHANDARKAR AISHWARY SHAILESH (2016A8PS0297P)

Student Write-up

Short Summary of work done during PS-II : Involved in developing backend services for an internal tool (website) for workflow management.

Tool used (Development tools - H/w, S/w) : Java, Spring Boot Framework, Camunda BPMN Engine

Objectives of the project : Develop a tool for workflow management for business processes internal to the firm.

Major Learning Outcomes : Backend website development

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The project alotted varies depending on the team. The workload is comfortable and there are enough learning opportunities. The work environment and infrastructure is good.

Academic courses relevant to the project : Object Oriented Programming

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Name: GULSHAN KUMAR (2016A8PS0728G)

Student Write-up

Short Summary of work done during PS-II : Full stack development ,Automation using Selenium ,Performance and Load Testing ,Spark Machine Learning

Tool used (Development tools - H/w, S/w) : Jmeter,Test complete ,Bit bucket ,Jenkins

Objectives of the project : 1.Delelopment of a Screen comparison tool to comapre the differences between two different environment of same web page and highlight the chages with

red rectangles . 2 .To create a Testframe work where we can perform Load testing of different pages.

Major Learning Outcomes : Java,Selenium,Spring boot,ReactJs,Websockets,Jmeter ,Load Runner ,Spark Machine Learning ,Automation of UI testing

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Environment is good people are helpful .Time is flexible .Mostly you can expect work related to Full stack development and Data base Management system .
There are few project on advanced technologies like Big data and Machine Learning but these projects are few and it depends in which team you are since all the teams doesn't have these projects.

Academic courses relevant to the project : Object Oriented Programming, DBMS ,Artificial Intelligence and Machine Learning

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PS-II Station : JP Morgan Services - GKN Risk Analytics - Finance , Bangalore

Faculty

Name: Krishnamurthy Bindumadhavan

Student

Name: KSHIRSAGAR NIMISH ROHIDAS (2016A4PS0282P)

Student Write-up

Short Summary of work done during PS-II : Creating a new Test and Control matching algorithm for Consumer Requested Credit Line Strategy .
Analysis and recommendation of a new strategy to decline a certain segment of applicants who are applying for credit line increase.

Tool used (Development tools - H/w, S/w) : SAS, SQL, Excel, PowerPoint

Objectives of the project : Improvement of a technique and analysis of a new strategy

Major Learning Outcomes : Understanding of how strategies work

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : None

PS-II Station : JP Morgan Services GKN Banking(CRG)Finance , Mumbai

Faculty

Name: Shekhar Rajagopalan

Student

Name: SAKSHAM TANDON . (2016A1PS0704H)

Student Write-up

Short Summary of work done during PS-II : CRG is the support office to Front End IB of JP Morgan. There are sector teams inclusive of all industries. Work is related to M&As across various industries. The nature of work is dynamic depending on the scope of the deals. As all deals are pretty specific to their domains. We are supposed to deliver tailor made solutions for every deal.

Tool used (Development tools - H/w, S/w) : Bloomberg and Microsoft Office

Objectives of the project : An individual project is allocated to every interns during the end of the period in which one is supposed to work on industry trends, idea generation and valuation for a specific sell side target

Major Learning Outcomes : Attention to detail and Analytical mindset

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : Work is dynamic and one is expected to receive a wide array of work. Working hours are quite hectic especially during the execution of deals. The company expects the analyst to be eager to learn and perform accordingly

Academic courses relevant to the project : Financial Management

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Name: GANDHI AYUSH SAMIR (2016A7PS0784G)

Student Write-up

Short Summary of work done during PS-II : Created VBA modules that can be used by all, some updates specific to some teams have slight variations in their backups/ chart types. Hence the BUA type of work involving a specific update of a specific team utilizes these modules with slight variation and certain additional programming for additional tasks if any to make the entire weekly update happen in a single click.

Tool used (Development tools - H/w, S/w) : VBA, Python

Objectives of the project : Automate repititive tasks done by the Bankers in Mumbai office

Major Learning Outcomes : Python and VBA

Details of Papers/patents :

Brief Description of working environment, expectations from the company : In conclusion, the internship has helped me sharpen my skills and gain confidence in them. I also gained industry experience since I got to work with various teams in various sectors and regions. This would certainly be a great help in my career ahead. The current scope of automation in JP Morgan is immense and it would be greatly advantageous to the company to push for large scale modular projects which can help across all teams

Academic courses relevant to the project : None

PS-II Station : JP Morgan Services-GKN GlobalResearch(GRC)Finance , Mumbai

Faculty

Name: Shekhar Rajagopalan

Student

Name: MUNDADA RISHABH AJAY (2015B3A10574P)

Student Write-up

Short Summary of work done during PS-II : My work was based on equity research and sector analysis. Keeping a track of 17 companies on daily basis. Building financial models for 2 companies from scratch, updating and reorganising existing databases, models and client marketing decks based on the available public information. Preparing weekly and quarterly research reports for companies under coverage.

Tool used (Development tools - H/w, S/w) : MS-Excel, VBA, MS-Office

Objectives of the project : To thoroughly understand the sector dynamics and understand the revenue and growth drivers for companies under coverage thereby providing with inputs for research reports

Major Learning Outcomes : Macroeconomic understanding of the sector, understanding of financial statements and analysis, understanding of corporate culture into the field of equity research and application of the content from college curriculum courses.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Very professional working environment.

Academic courses relevant to the project : Fundamentals of finance & Accounting, Financial Management, Business analysis and Valuation.

Name: TRANJOT SINGH (2015B3A10627P)

Student Write-up

Short Summary of work done during PS-II : Work: I am in an European Equity Research team. We forecast the performance of stocks through valuation. We focus on updating financial models and expectations as earnings releases (Quarterly or Annual) of the companies come out. On the basis of our valuation, we rate the stock as underweight, neutral or overweight. Along with this, there are many daily and weekly notes which we publish.
PPO chances: ~60% based on historical figures (depends mainly if there is a vacancy or not)
Reach out to me if you have any other query regarding this profile.

Tool used (Development tools - H/w, S/w) : Advanced Excel, VBA (Beginner level)

Objectives of the project : Equity Research: Valuation of companies through financial models

Major Learning Outcomes : Understanding of equity research, model forecast, valuation, enhancement of Excel skills and knowledge of the particular market you are working in.

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : I'll be here for both of my semesters. Although working hours are long, work environment is good. You can easily reach out to seniors (a lot of BITSians here) if you face any problem. You get to experience the feel of working in Corporate and how to deal with it while maintaining work life balance.

Academic courses relevant to the project : Fundamentals of Finance and Accounting (very important), Business Analysis and Valuation, Financial Management, Security Analysis and Portfolio Management, Derivatives and Risk Management

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Name: RACHIT AGRAWAL (2015B3A30537G)

Student Write-up

Short Summary of work done during PS-II : Creating financial models and updating the models for the quarterly results, publishing notes with recommendations, sourcing data from various sources for clients and regular work. Preparing presentation with sector and company outlooks. Working with associates from across the region to create reports giving macro outlook and company valuation, price targets and company specific risks and rewards.

Tool used (Development tools - H/w, S/w) : Excel, PowerPoint, Word, VBA, Bloomberg

Objectives of the project : Creating financial models for companies and doing due-diligence work to provide recommendations and data for companies..

Major Learning Outcomes : Deeper understanding of accounting and valuation principles and the sectors you work in.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Working environment relaxed and the people are good and cooperative. Company expects you to know the basics and have professional attitude.

Academic courses relevant to the project : FOFA, FM, BAV, DRM

Name: SAMAKSH GULATI (2015B3A40498G)

Student Write-up

Short Summary of work done during PS-II : The work involves analysing company financials, performing ratio analysis and financial modeling to give a Rating to a stocks (Buy/hold/sell). The task involved was updating the financials of the companies and maintaining Models.
 I grabbed the opportunity to learn Visual Basic and make macros to automate certain web scraping tasks for the team

Tool used (Development tools - H/w, S/w) : Excel, VBA, Bloomberg,

Objectives of the project : Equity Research

Major Learning Outcomes : Understand the driver and catalysts of stock markets; Financial Modelling and Valuation

Details of Papers/patents :

Brief Description of working environment, expectations from the company : J P Morgan was a holistically rewarding experience that works to maximize your potential. In Equity Research, we were assigned different teams and sectors. I got a chance to be in the U.S healthcare Distribution and Technology team where I spent the first few weeks going through the industry primers and companies models in our coverage. The work gave me a broad understanding of how the companies functions and what all catalysts and drivers can affect the stock price.

Academic courses relevant to the project : Buisness Analysis Valuation, Technical Report Writing, Fundamentals of Financial Accounting

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Name: SAURABH JAIN (2015B3A40503P)

Student Write-up

Short Summary of work done during PS-II : I am a part of a 4 member team covering European Small Midcap companies. Two of them sit in London and two in Mumbai. We look at Europe as a whole and do not focus on any specific sector like in Equity research. As per our list of monthly deliverables, the team prepares reports which can be weekly, monthly or quarterly. These reports provide our views of the region from a fundamental, valuation and sentiment standpoint. These reports can then be used by investors to understand the market direction better and make investing decisions.

In between all of this, you are expected to prepare charts, drafts, screens, run queries for these reports. It involves a lot of Excel, Access work and requires you to have a basic understanding of VBA and SQL. The work hours can be stretched once in a while depending upon deadlines. The work can be a little repetitive at times but there are things you can extract out of this team depending on how sincere and interested you are.

Tool used (Development tools - H/w, S/w) : Excel, Access, VBA, SQL, Bloomberg

Objectives of the project : EMEA Small MidCaps Equity Strategy

Major Learning Outcomes : 1. VBA, SQL, Access, Bloomberg (Technology wise).
2. Responsibility, Discipline, Accuracy, Professionalism, Time Management
3. Conducting Fundamental, Valuation, Sentiment Analysis.

Details of Papers/patents : Nil

Brief Description of working environment, expectations from the company : JP Morgan is one of the biggest names in the Industry. You can expect the working environment to be highly professional and organised. They have a very well laid out internship structure.
Colleagues are very friendly and understanding.
Academic courses relevant to the project : Finance Courses, MacroEconomics

PS-II Station : JP Morgan Services-GKN Markets &Treasury Risk-Finance , Mumbai

Faculty

Name: Shekhar Rajagopalan

Student

Name: AKSHAJ KASLIWAL (2015B3A80555P)

Student Write-up

Short Summary of work done during PS-II : Two categories of work was there. One was a BAU(Business as usual) and the other was a project type work allotted to me.
In the BAU part I had to do the daily VaR analysis for the Currencies and Emerging Markets line of business. It gave me a financial Outlook.
The other part was the project part which consisted of tool automation. It was based on Python and Object oriented programming.

Tool used (Development tools - H/w, S/w) : S/w - Microsoft Visual Studio, Excel.

Objectives of the project : Daily Report Automation

Major Learning Outcomes : Got to learn a lot about tool developement on the technical side and financial analysis on the finance side.

Details of Papers/patents : N/A

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : DRM, MBFM ,FINMAN, OOP.

Name: VINAY CHHAJER (2016A1PS0529G)

Student Write-up

Short Summary of work done during PS-II : As a member of team of a Liquidity Risk Oversight team under CTC risk Department, I helped in fast advancements and improvements

in work done in various projects. My team manages the firm's capital, balance sheet, liquidity and funding strategy and positions, including short dated and secured funding, debt and capital issuance and buybacks, and liquidity risk management, as well as the company's rating agency relationships and corporate insurance activities. My team is responsible for Firmwide Liquidity Risk and Interest Rate Risk Management. I had a significant contribution in a project taken my manager which will be presented to head of department

Tool used (Development tools - H/w, S/w) : Bloomberg Terminal, Excel

Objectives of the project : Liquidity and Interest rate risk impact analysis on JP Morgan business by major stressed sectors & economy outlook of India

Major Learning Outcomes : Data Analytics

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : none

Name: SAUMYA NAIR (2016A1PS0551G)

Student Write-up

Short Summary of work done during PS-II : Conducted a project on Negative Yielding Debt and its impact on the banking, pension and insurance sector. As more and more of the world's outstanding debt turns negative yielding, it is important to assess the impacts of this on various financial institutions. The purpose of this study is to assess changes in asset allocation and impact on earnings in various industries that are exposed to negative rates, namely banking, pension and insurance firms. The study also examines the effectiveness of negative interest rate policy and whether it has actually achieved the objectives central banks hoped it would.

Tool used (Development tools - H/w, S/w) : VBA

Objectives of the project : To assess the impact of negative rates on the banking, pension and insurance sector.

Major Learning Outcomes : •   Learnt about the influence of geopolitical events on market movements and how the market is driven by these.
•   Learnt about various risk sensitivities like VaR, DV01, BPV, CS01.
•   Understood the concept of negative yields and negative interest rate poli

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Derivatives and Risk Management, Security Analysis and Portfolio Management

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Name: PUNEET GUPTA (2016A1PS0778P)

Student Write-up

Short Summary of work done during PS-II : Implementation of FRTB rules and understanding different methodology used to calculate capital charge for assets on firm books. Using different methodology to explain the movement in capital charge week on week and explain the reason of outliers.

Tool used (Development tools - H/w, S/w) : S/w : Python, Excel and Tableau

Objectives of the project : Automation of weekly analysis of strategic capital numbers and implementation of FRTB rules

Major Learning Outcomes : Firm grip over python, Excel, Tableau and Market Risk concepts

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : Derivatives and Risk management, Financial Engineering, Computer programming, Probability and Statistics

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PS-II Station : JP Morgan Services-GKN Markets(GMG)Finance , Mumbai

Faculty

Name: Shekhar Rajagopalan

Student

Name: PRACHI TIWARI (2016A1PS0466G)

Student Write-up

Short Summary of work done during PS-II : The Global Markets Group (GMG) of the company works on the pricing and pitching of all kinds of trades that happen all across the world. This involves the creation of different kinds of trade products for their clients as well as their pricing and sales. The work in the Markets group revolves around the creation of such products which would appeal to the different risk behavioural clients. The next important step comes to placing a competitive price for their products and reaching out to a large number of clients all across the globe. I have worked on both the index creation as well as the pricing part initially but later my work shifted onto primarily focusing on the pricing side. The aim of the

project was to automate the pricing process that occurs on a daily basis in large amounts in Markets.

Tool used (Development tools - H/w, S/w) : VBA, Python, Advanced Excel

Objectives of the project : Automation of Pricing of Various Trade Products

Major Learning Outcomes : Coding in VBA and Python, Knowledge about the different structured products trading around the world.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment is very friendly. Everyone is always willing to help you with any doubts about the work.

Academic courses relevant to the project : Derivatives and Risk Management (DRM), Security Analysis and Portfolio Management (SAPM)

Name: NAMAN DUBEY (2016A3PS0141G)

Student Write-up

Short Summary of work done during PS-II : Work done mostly involved understanding and developing codes for new indices(based on client agreed guidelines) to facilitate upcoming trades across geographies.

Tool used (Development tools - H/w, S/w) : Python based software, Microsoft Excel

Objectives of the project : Algorithmic Trading Strategies and Index Structuring

Major Learning Outcomes : Understanding of how indices are structured and worked on, delivering work on tight timelines, working and gaining understanding different products that the company offers.

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : People in the company and department are extremely friendly and helpful. Most of the employees are graduates from premier engineering colleges of India which gives exposure to working in competitive work space.

Academic courses relevant to the project : Derivatives and Risk Management, Security Analysis and Portfolio Management

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PS-II Station : JP Morgan Services-GKN Quantitative Research-Fintech , Mumbai

Faculty

Name: Shekhar Rajagopalan

Student

Name: NIKUNJ AGARWAL (2015B3A70579P)

Student Write-up

Short Summary of work done during PS-II : I worked on Propritery JPMS software to calculate capital requirements under FRTB Internal Models approach

Tool used (Development tools - H/w, S/w) : Python

Objectives of the project : Calculate capital requirements

Major Learning Outcomes : Python, Databases

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Very good working environment. Above expectations.

Academic courses relevant to the project : Object Oriented Programming

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Name: R AADITH . (2015B4A70671H)

Student Write-up

Short Summary of work done during PS-II : Worked on feature selection using Zero Norm and Sequential Monte Carlo. Performed unit-testing and profiling of proprietary trade scheduling tool.

Tool used (Development tools - H/w, S/w) : Python, Q, R

Objectives of the project : Feature selection using Zero Norm and Sequential Monte Carlo

Major Learning Outcomes : Sequential Monte Carlo,Learnt Python, Multiprocessing,multi-threading, feature selection

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : Very collaborative and friendly. People are very smart and approachable. All expectations met.

Academic courses relevant to the project : Machine Learning, Artificial Intelligence, Statistical inference and application

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Name: AYUSH GUPTA (2016A7PS0024G)

Student Write-up

Short Summary of work done during PS-II : I am in the Wholesale Credit Team of the Quantitative Research and helped to find the Risk associated of a portfolio from the perspective of two different models for risk estimation.

Tool used (Development tools - H/w, S/w) : Spyder and Python, Excel , Word, IntelliJ

Objectives of the project : Calculate Credit Risk for a specific portfolio

Major Learning Outcomes : Pandas and Finance Knowledge

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : The working environment is very good, people are friendly and helpful.

Academic courses relevant to the project : Data Mining

PS-II Station : JPMC - Technology , Mumbai

Faculty

Name: Swarna Chaudhary

Student

Name: ASHUTOSH AGARWAL (2015B2A80766P)

Student Write-up

Short Summary of work done during PS-II : KUBERNETES(Container orchestration technology for cloud native applications) ,
Private JPMorgan cloud, Springboot JAVA.

Tool used (Development tools - H/w, S/w) : JAVA SPRINGBOOT, REACT REDUX, KUBERNETES, JSON, XML, INTELLIJ, LINUX

Objectives of the project : Build a Java springboot application and deployment on cloud as well as kubernetes cloud.

Major Learning Outcomes : Kubernetes, Springboot framework and libraries widely used and adopted by major industries,

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Good culture and helpful team.

Academic courses relevant to the project : OOP, OS

Name: KUMAR SARTHAK (2015B2A80886P)

Student Write-up

Short Summary of work done during PS-II : I have been involved in two projects during my internship. The first project is about building a dashboard using R shiny which provides an interactive graphical representation of real time updates of various accounts and userbanks. The dashboard is also equipped with advanced features like drill-down, hovering events, customize plots etc. Moreover, in the later half of my tenure, I have also included prediction part for detecting the failures possibility of any execution. The second project is related to authentication of a self-learning chatbot by adding entitlement service to the project.

Tool used (Development tools - H/w, S/w) : R, Python, Postman, IntelliJ, Oracle SQL developer

Objectives of the project : Building dashboard for graphical representation of data using R Shiny and implementation of machine learning algorithm for predictive analysis of NAV fund

Major Learning Outcomes : It has been a great experience as both the projects offer a lot to learn. It helps me in improving my technical skills a lot and also makes me understand how different application and various technologies integrate to work at a commercial level.

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : OOP, OS, DBMS, NNFL.

Name: AYUSH BANSAL (2015B4A80573P)

Student Write-up

Short Summary of work done during PS-II : I was assigned a task to work on a application which has huge amount of lines of code which was uncalled for. So, I was assigned to understand the flow and remove all the unnecessary code for the application to optimize and fixing the bugs in the both backend and Front end of the application. Also to increase the test coverage to more than 50% which includes fixing the old ones which uses some dependency from the net or the database and also writing new ones. I completed the task successfully. After that I was assigned some smaller tasks and POC for trying out different databases for the application including cloud database as well. The POC also used Django Framework. Also worked on creating a view for data display, which used Python and perl scripts.

Tool used (Development tools - H/w, S/w) : Java, Spring Framework, Python, Django, Junit and Mockito

Objectives of the project : Fixing the Application.

Major Learning Outcomes : Spring Framework, Django Framework. Culture of Corporate world.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Everyone is really helpful there. Good place to work even if you do not have prior experience with coding.

Academic courses relevant to the project : Object Oriented Programming

Name: TANMAY DIXIT (2016A3PS0218P)

Student Write-up

Short Summary of work done during PS-II : I was a part of 2 major projects, and a couple of minor ones. The first project involved developing multi-tab dashboard using R that collated data

from a dozen independent sources and presented the output information in the form of data visualizations with the goal of communicating necessary insights to senior executives.The second project on the other hand involved full stack web development with Angular JS , HTML, CSS frontend/ Java(Spring Boot) backend. Other minor projects involved data analysis using tableau or automation of existing processes.

Tool used (Development tools - H/w, S/w) : Java/AngularJS/HTML/SQL for the web development project + R/Python for dashboard design

Objectives of the project : Software Development & Dashboard Design

Major Learning Outcomes : Software Development & Dashboard Design

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : Working conditions are awesome, flexible working hours and you get a lot of added perks such as free transport services and sodexo cards. JPMC offers a wide variety of projects suited to your resume and profile, and you have to option to switch if you don't like the one assigned. Team members are always happpy to help you out if you get stuck.

Academic courses relevant to the project : DSA, OOP, DBMS, Foundations of Data Science

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Name: NITISH GUPTA GUPTA (2016A8PS0299P)

Student Write-up

Short Summary of work done during PS-II : Building an Integration Test Suite which automates browser testing and validates data with another instance of the same application using Selenium Webdriver.

Tool used (Development tools - H/w, S/w) : Gherkin, Cucumber, Selenium Webdriver Js, TypeScript, Node.js, react.js, VS Code, jules, jenkins, groovy

Objectives of the project : Building an Integration Test Suite for Data Validation

Major Learning Outcomes : Understanding the complete workflow of a firm and it's functioning. Gaining a business perspective for a project. Improving certain soft skills and confidence while having 1-1 discussions with senior executives.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The company provides good learning and a friendly atmosphere. You are expected to finish your work before the deadline. They want us to be inquisitive and be able to learn from our mistakes.

Academic courses relevant to the project : Object Oriented Programming, Data Structures & Algorithms

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PS-II Station : Knorr-Bremse Technology Center India Private Limited , Pune

Faculty

Name: Manoj Subhash Kakade

Student

Name: PARITOSH RAJPUROHIT (2016A8PS0326G)

Student Write-up

Short Summary of work done during PS-II : The project assigned to me was to develop a privacy protection tool. Company uses ADAS systems which consists of several cameras and other sensors on vehicles. These cameras captures private information like faces of pedestrians and licence plates of people around it. The goal was to develop a tool that detects faces and number plates and blur them using deep learning and neural networks.

Tool used (Development tools - H/w, S/w) : S/w: Pycharm, Anaconda, Darknet framework, YOLO models
H/w: GPU(Nvidia GTX 1060 6GB)

Objectives of the project : Develop a privacy protection tool

Major Learning Outcomes : Learnt about agile methodology of working. Learnt about market needs and expectations in my specific field of project. Experience to develop a deep learning and neural network based tool.

Details of Papers/patents : Nil

Brief Description of working environment, expectations from the company : The working environment at Knorr-Bremse was good. There were no deadline as such to complete your goal. They let you decide goals and the time to achieve them. The company expected to be interested in particular field and will assign a project according to that. They give you time to learn the basics before working on the project.

Academic courses relevant to the project : OOP, DIP(Digital Image processing)
Online courses: Coursera Courses on deep learning and AI. Convolutional Neural Networks.

Name: AKSHATH KAPIL (2016A8PS0398G)

Student Write-up

Short Summary of work done during PS-II : I worked on development of a software named EnSeGi which automates ADAS testing and Python Toolchain Migration from Python 2.7 to Python 3.7

Tool used (Development tools - H/w, S/w) : PyCharm IDE and Excel VBA

Objectives of the project : To automate ADAS testing

Major Learning Outcomes : Core Python Programming skills and software development in Python

Details of Papers/patents : Not applicable

Brief Description of working environment, expectations from the company : The work environment was very encouraging, mentors were supportive and faculty in-charge was also very supportive

Academic courses relevant to the project : Computer Programming

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PS-II Station : Kochar Tech , Gurgaon

Faculty

Name: Ashish Narang

Brief write-up on PS-II station : KocharTech, started in 2003, specializes in digitally transforming business processes by designing disruptive solutions using AI and Machine Learning technologies. KocharTech has been powering some of the Fortune 500 companies, MNCs as well as Unicorn Start-ups across Asia, Africa, Europe and the Middle East. Students have worked on projects in computer vision

domain where students have to develop machine learning and AI based approaches to monitor real time footfall in a commercial outlet. Organization prefer to have students who are good researchers, can work independently with minimum mentorship and have excellent programming skills.

Student

Name: PRAJJWAL MAHAJAN (2016A7PS0123P)

Student Write-up

Short Summary of work done during PS-II : Created a real-time footfall monitoring system that was designed according to the principles of economically viable, versatile, real-time execution. Deployed my project across several commercial locations of a client with reasonable success.

Tool used (Development tools - H/w, S/w) : python and related libraries, shinobiCE, dlib, spyder, anydesk

Objectives of the project : 1. Record and analyze periodic footfall in a commercial location   2. Create data optimum for analyses that benefit the client

Major Learning Outcomes : Knowledge of several image-processing techniques, object detection algorithms, client exposure.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment was very open, approachable. I had the opportunity to work with several high-level executives as well as the CEO. The organisation has several people with immense knowledge and a knack for learning. If you have enough drive for your project, you will be given any and every resource you could possibly require. An incredible learning experience overall.

Academic courses relevant to the project : Data Science, Image processing

Name: RASHI SHARMA MANOJ KUMAR . (2016A7PS0140H)

Student Write-up

Short Summary of work done during PS-II : I worked with the IT team of the company. Worked on different Machine Learning and Computer Vision projects.

Tool used (Development tools - H/w, S/w) : NVIDIA Jetson Nano Developer Kit, Orange Pi 3, GPU 1080ti, 3D IP cameras, Python, JSON

Objectives of the project : The task was to make an automated footfall counting system which avoids multiple counts for the same person by re-identifying the person and differentiating staffs from customers.

Major Learning Outcomes : Proficiency in Python, Building ML models

Details of Papers/patents :

Brief Description of working environment, expectations from the company : In a startup you will be given plenty of work and will get to grow as a coder. KocharTech being a startup company is currently expanding in IT Department. KocharTech is currently working on different Data Science projects. Company's working hours are flexible. It's just that if you are completing your day to day work and making a progress in your project they will not say a thing to you if you come on time or not.
Academic courses relevant to the project : Software Engineering
Information Retrieval
Probability and Statistics

PS-II Station : Kristal.AI , Bangalore

Faculty

Name: Rejesh N. A.

Brief write-up on PS-II station : 1.Kristal.AI provide investors with a platform which will help them hone their money-management skills with the best of technology and human acumen.

Course Requirements:

1. Courses of OOP(Object Oriented Programming),

2. OS(Operating Systems),

3. DSA(Data Structures and Algorithms)

4. CP(C Programming)

5. Probability and Statistics

6. Linear algebra

7. Neural Networks and Fuzzy logic.

8. Probability and Statistics II

Student Skillset:

1. Hands on experience on OOP for all interested students.

2. Backend development using Spring Boot and Java.

Student

Name: ROY ABHIK SUKDEV (2015B3A40597P)

Student Write-up

Short Summary of work done during PS-II : I did 2 projects. Both were based on Quantitative Finance. First was creating a risk management system. Second was to create index tracking portfolio.

Tool used (Development tools - H/w, S/w) : Python, R, Bloomberg

Objectives of the project : Quantative Finance

Major Learning Outcomes : Quants and Data Science

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Great place to work. A lot of learning oppurtunities.

Academic courses relevant to the project : DRM, SAPM, FinE

Name: VARAD NAIK (2016A3PS0131G)

Student Write-up

Short Summary of work done during PS-II : Comparing Databases, Spring Cloud, Spark

Tool used (Development tools - H/w, S/w) : Postgres , TimescaleDB, Spring Boot, Apache Tomcat,Apache Spark

Objectives of the project : Backend Development

Major Learning Outcomes : SQL, Backend Systems, Big Data Processing using Apache Spark

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Amazing Working Enviroment , very friendly people.

Academic courses relevant to the project : OOP , DBMS

Student Write-up

Short Summary of work done during PS-II : 1] Developed Kristal.AI's Growth algorithm, worked on Kristal.ai's Asset Preservation algorithm and also built a REST API around it.

2] Reduced the bootstrapping time from 270 seconds to 15 seconds which gave us leeway to incorporate implied volatility into the bootstraps

leading to better predictions.

3] Developed a Sentiment Analysis Model for Financial News data using BERT which led to a 26% improvement in accuracy over the previously

used model.

4] Built an article summarization system using SummaRuNNer which will enable Kristal to push news article headline as well as a brief summary of

the article to the customers leading to better user experience.

Tool used (Development tools - H/w, S/w) : BERT, Pandas etc

Objectives of the project : 1] Develop an efficient portfolio optimization algorithm. 2] Develop a sentiment analysis model for financial news.

Major Learning Outcomes : Learnt about the finance industry, algorithmic trading, non-convex optimization techniques and BERT.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Excellent work and people, but PPO CTC is low.

Academic courses relevant to the project : Maths-II, Probability and Statistics, Optimization, Neural Networks and Fuzzy Logic, Machine Learning

PS-II Station : Kruzr Mobility Technology Solutions Pvt. Ltd. , Bangalore

Faculty

Name: Lucy J. Gudino

Student

Name: TULLURI SAI KIRAN . (2015B2A20793H)

Student Write-up

Short Summary of work done during PS-II : Worked as Android application developer and in development of "KRUZR" application.

Tool used (Development tools - H/w, S/w) : Java, Android Studio, XML

Objectives of the project : Notifications, network calls

Major Learning Outcomes : User Interface, Notifications in Android applications

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : Flexible environment where you can work in any role of your wish

Academic courses relevant to the project : OOPS

Name: MALHAR SANJAY JAGDALE . (2016A4PS0334H)

Student Write-up

Short Summary of work done during PS-II : I started my work in the field of Marketing and Sales. For the first 2 weeks they taught me the workings and the procedure for the work. My first few set of works was to do market research relevant to the company, like the competitors, product differentiation, relevant companies, influencers, organizations that would be interested in our company. After the research the second set of work was of sales, for which I had to find the People in the Organizations that I found earlier who would help our company grow. I found their Email IDs and then began the work of cold Mailing. After this my work was of Digital marketing.

Tool used (Development tools - H/w, S/w) : Reply.io, Hootsuite, Lusha, Clearbit, Hunter.io

Objectives of the project : Growth of the company

Major Learning Outcomes : Marketing and Sales

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : The working environment of the company is really good with the company being a startup you have to be ready to work at any time. With Foosball tables, PS4 and such entertainment sources in office you wouldn't want to miss the office. The team is really great who would help you out all the time.

Academic courses relevant to the project : -

PS-II Station : Lenskart , Bangalore

Faculty

Name: Anita Ramachandran

Student

Name: HEERANSH SINGH (2016A3PS0232P)

Student Write-up

Short Summary of work done during PS-II : The project undertaken by me was to add the functionality of an Inventory Management Register on the Lenskart POS platform. The project included designing the UI for the webpage using Angular6, HTML, CSS and Java Script. We used MySQL to write queries to easily manipulate, retrieve and manage data. SOAP APIs were written to extract data based on multiple filters. The inventory was divided into many subgroups and we were expected to apply filters on all these items in order to display daily inventory counts for all stores based on date,brand,category etc. Amazon S3 storage was used to check for anomalies in real time data collected from all stores and to store daily inventory counts. Crons were scheduled to solve the problem of time difference between India and Singapore stores when handling real time inventory counts. I also worked on developing a retry mechanism to solve errors due to network issues.

Tool used (Development tools - H/w, S/w) : Angular 6, MySQL, SpringSTS, Core Java, J2EE, HTML, CSS, GitLab

Objectives of the project : Full Stack Web Development - The objective of the project was to add the functionality of an Inventory Management Register on the Lenskart POS platform.

Major Learning Outcomes : Got an opportunity to learn and apply concepts like cron scheduling, data caching, retry mechanism, SQL queries, cloud storage etc. Learnt Frontend development using Angular 6.

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : Working environment at Lenskart is very employee friendly. All team members are easily approachable. Senior management provides help, guidance and mentorship whenever required. Timings are flexible and work from home/holidays are given whenever required.

Academic courses relevant to the project : OOP, DSA, DBMS,

PS-II Station : Lowe Services India Pvt.Ltd , Bangalore

Faculty

Name: Siddharth Mishra

Student

Name: BHANDARI SHUBHAM PRADIP KUMAR (2015B3A30471P)

Student Write-up

Short Summary of work done during PS-II : Worked as an intern in supply chain analytics team.
Reporting and dash boarding are the 2 major fields of my work.

Tool used (Development tools - H/w, S/w) : MS-excel, Microstratergy, Teradata, SQL, Python

Objectives of the project : The main objective of the reporting project was to track the promotion readiness of items. Dashboard was made to understand the errors in the forecasting model.

Major Learning Outcomes : Learnt about use of analytics in decision making for the retail sector . Understood the business strategies of Lowe's for the home improvement.

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : Fantastic place to work, great work culture.

Academic courses relevant to the project : Econometrics to some extent

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Name: Chirag Pathak (2016A4PS0275P)

Student Write-up

Short Summary of work done during PS-II : As a part of the Customer Insights and the Macroeconomics segment of the DACI (Data Analytics segment at Lowe's), I got to work on various dashboards they maintain for important economic parameters. My work was to automate and refine those dashboards. Secondly, I also got to work on an ARIMA forecasting model which is used by Lowe's Strategy team. Apart from major projects, I also got to work and learn about web scraping and text analytics stuff.

Tool used (Development tools - H/w, S/w) : Databases - Teradata, Hadoop; Languages - Python, SQL; Dashboarding tool - MicroStrategy

Objectives of the project : Create more accurate python based forecasting model and to automate their dashboard data refresh process

Major Learning Outcomes : In the past 6 months, I got to learn a lot of things:
1. Technical - Time series forecasting, Web scraping, Python (Pandas, NLTK and Selenium) and SQL
2. Non Technical - While working in the team, got to see how an analytics team works to create a story

Details of Papers/patents :

Brief Description of working environment, expectations from the company : DACI is the Analytics segment of Lowe's and it provides support to the US business. You'll get to learn about how the US home improvement retail industry works. All the teams here are good and have some very interesting projects. You'll get to meet amazing seniors who are always ready to help you. The work timings are convenient and the main focus is on the work you do.

Academic courses relevant to the project : None

Name: ANKUSH KHETAN (2016ABPS0832P)

Student Write-up

Short Summary of work done during PS-II : I worked on multiple projects during the course of 5 Months which included doing Web Scraping to collect data ,Using SQL to extract data from databases and using text analytics to draw reasonable inference of the raw data.

Tool used (Development tools - H/w, S/w) : Python Packages(Selenium , Beautiful Soup) , SQL , Tableau , MS Excel, Hadoop , Teradata.

Objectives of the project : To collect relevant inferences from raw data and thus help the company increase its sales and profit share in the US market.

Major Learning Outcomes : The learning outcomes can be split into three parts : From Technical perspective I learnt python , Tableau , SQL etc. From a Business point of view how a fortune 50 company like Lowe's operates. I learned how Retail Analytics works, and various metrics etc.,

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The Environment is very friendly with everyone from the director to analyst is very approachable . All the people are very helpful and they help you unconditionally . The projects allocated are interesting and the office timings are flexible too.You also get to interact with the US counterparts during team meetings. The company only expects you to have a good attitude towards problem solving. Technical Proficiency in SQL,Excel, Python and other dashboarding tools are an added advantage.

Academic courses relevant to the project : Nothing.

PS-II Station : MapMyIndia , Bangalore

Faculty

Name: Seetha Parameswaran

Brief write-up on PS-II station :

The working environment was good, with all the employees very helpful. The mentoring is good. The company expects everyone to give their maximum effort.
Tools used : Python and OpenCV
Academic courses relevant to the project : Machine Learning, Image Processing, Neural Networks
Objectives : train a convolutional network to detect and segment road objects, road obstacle detection, lane segmentation, trajectory prediction.
Soft skills - presentation and writing skills.

PS-II Station : Maybank Labs Pvt. Ltd. , Bangalore

Faculty

Name: Mohammad Saleem J Bagewadi

Student

Name: PRIYANSH GATTANI (2016A4PS0340P)

Student Write-up

Short Summary of work done during PS-II : Working on backend development for mobile application and web. Created Rest web services for the system using JAVA with Spring boot and hibernate/JPA, designed the database, wrote queries and PL/SQL procedures in Oracle SQL developer.

Tool used (Development tools - H/w, S/w) : JAVA,Oracle SQL Developer, Spring boot,JPA

Objectives of the project : Backend Development of Mobile and Web Application

Major Learning Outcomes : JAVA,SQL,Spring,Hibernate,JPA,DSA

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Agile work environment. Proper projects were assigned and monitored .Good learning experience.

Academic courses relevant to the project : OOP, DSA

PS-II Station : Mech Mocha Internet Pvt. Ltd. , Bangalore

Faculty

Name: Raja Vadhana P

Student

Name: LAKSHYA GARG (2016A4PS0432P)

Student Write-up

Short Summary of work done during PS-II : The work ranged from developing individual features to developing a game. Most of the games were outsourced from other companies, hence integration was the main task. Android Studio was used along with the game development softwares like Cocos Creator, Construct 2 and Construct 3.

Tool used (Development tools - H/w, S/w) : Android Studio, Cocos Creator, Construct 2, Construct 3, Jenkins, Amplitude, GoLand.

Objectives of the project : Game Development

Major Learning Outcomes : Got to learn about Game Development. Working in a professional environment is an experience, try to cherish it.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment was professional with proper roadmaps present for future products. The company provided proper hardware and software to carry out the work smoothly.

Academic courses relevant to the project : -

PS-II Station : Mentor Graphics , Bangalore

Faculty

Name: Rejesh N. A.

Brief write-up on PS-II station : Mentor Graphics Tool used - OpenCV - C++
Course - Digital Image Processing
Changes - DIP is taught on MATLAB. Instead of using Matlab, OpenCV with Python/C++ can be used.

Student

Name: MOHIT VYAS (2016A3PS0210P)

Student Write-up

Short Summary of work done during PS-II : Design to Image contour conversion. Fancy name for drawing lines using OpenCV

Tool used (Development tools - H/w, S/w) : OpenCV - C++

Objectives of the project : The project was aimed at retrieving Manhattan layouts from SEM images of fabricated chips using image processing techniques.

Major Learning Outcomes : If STL counts as learning.

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : The people here are very nice, you get free food and all. However, they'll mostly give you IT related work and not core.

Academic courses relevant to the project : DIP

PS-II Station : Mercedes Benz , Bangalore

Faculty

Name: Shashank Tiwari

Student

Name: AVIRAL RATHI (2015B1A40806G)

Student Write-up

Short Summary of work done during PS-II : Method Development, Durability Analysis, Simulations and Finding better alternates to existing designs. Design of Experiments

Tool used (Development tools - H/w, S/w) : NASTRAN, ABAQUS, HYPERMESH, ANSA, HYPERVIEW

Objectives of the project : Finding viable and feasible design for Running Board

Major Learning Outcomes : Creative Thinking, Problem Solving and various softwares used in core fields

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Good working environment. Work focused. Good amount of work is given. 9+ official working hours. PPO scenes very tough though.

Academic courses relevant to the project : CAD/CAE

Name: A MOHAMED FATHAAHUL HUQ . (2015B5A40565H)

Student Write-up

Short Summary of work done during PS-II : Topic: Random Vibration Fatigue Analysis on Motor
Casing.
The electric motor is used in E-Drive applications. Fatigue is an import factor based on which warranty and time to service cars are decided. Random vibrations is a load that usually designers don't pay enough attention to, and the source of such vibration is due to the road profile and other external factors. In this study, we aim to perform a frequency analysis to identify the problematic eigenvalues and also perform a fatigue analysis to calculate damage and life cycle of the motor casing.

Tool used (Development tools - H/w, S/w) : HyperMesh, OptiStruct

Objectives of the project : Identify the stress concentration areas and observe the effect of random vibration fatigue on the component as a whole

Major Learning Outcomes : Learnt about fatigue loading and mathematics used in FEA tools for solving such problems. Also gained insight on current E-Drive research being performed in MBRDI.

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : My department (RD I/CCD, Powertrain Division) had several teams under the umbrella. Although I didn't have the opportunity to interact with all, my colleagues were welcoming and ready to help me in any situation. My mentor was available in all times of crisis and directed me toward the solution at the end of the day. Although 9+ hours of timing was officially mentioned, my manager was not specific about it, so I really had to stay only until I had work. Timings are flexible too, although I came early and left early. Outside work, I had several trips with my colleagues, to nearby tourist attraction. We also played football every week, and I also participated in an inter-department tournament in the time I spent here.

Academic courses relevant to the project : Automotive Technology, Electromagnetic Theory, Finite Element Analysis (FEM), Mechanical Vibrations, Mechanics of Solids

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PS-II Station : MiQ Digital India Pvt. Ltd. , Bangalore

Faculty

Name: Mohammad Saleem J Bagewadi

Student

Name: VAIBHAV SHARMA (2015B2A10846P)

Student Write-up

Short Summary of work done during PS-II : Working environment here basically deals with Improvement in the productivity and efficiency of the products and client relationship with the company. Understanding Big Data and using data analytics to provide advertising insights to the client (advertiser or agency) for business and advertising strategies.Improving or developing new tools to ease data management and enhance automation for easier insights generation for MiQ as well as its clients.

Tool used (Development tools - H/w, S/w) : Qubole, Amazon Redshift, Tableau, Jarvis, Hive, Spark, SQL, R Studios,

Objectives of the project : The objective of my project was to use tools like Hive , R , Tableau and Jenkins and fulfil clients requests on a daily basis as well as built automated tools for business ease

Major Learning Outcomes : 1)   Gaining knowledge of Ad Campaigns
2)   Learning Big Data Processing tools like Hive , Sql and Apache Pyspark ,R and Python
3)   Visualization tools Tableau
4)   Machine Learning and Statistics concepts like Text analysis in deep learning and K means in Unsup

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Working environment in MiQ is very comfortable and employee friendly. People are always motivated to complete their work before the deadlines. Work load on a daily level depends on the team/pod you're working in. Everyone is always ready to help in whichever way possible. Also many people are usually working on different projects, so if at all anyone gets a chance to work on them, they can learn a lot from it.

Academic courses relevant to the project : Basics of SQL, R, Python is a plus

Name: SACHIN RAGHUNANDANA PERURI (2015B5A40650H)

Student Write-up

Short Summary of work done during PS-II : Took up various analytics projects for major clients and made a custom reporting solution for video ad campaigns using R programming.

Tool used (Development tools - H/w, S/w) : Redshift, SQL, Tableau, R, Python, Qubole (Hive), Excel

Objectives of the project : To automate frequently requested reports.

Major Learning Outcomes : Learnt basics of analytics and programming and Tableau.

Details of Papers/patents : Nil

Brief Description of working environment, expectations from the company : Excellent working and learning environment. Company expectations are fine and manageable. Good work life balance.

Academic courses relevant to the project : Machine Learning, Data Mining, DBMS, DSA

PS-II Station : Morning Star - Index New Product Development , Mumbai

Faculty

Name: Siddharth Mishra

Student

Name: AMIT AGRAWAL (2015B3A40610P)

Student Write-up

Short Summary of work done during PS-II : Worked on several APIs and services on AWS using various components like s3, dynamoDB, SQS, Athena, ECS, etc.

Tool used (Development tools - H/w, S/w) : Java, AWS, Springboot, Python, Junit5

Objectives of the project : To develop applications for internal clients

Major Learning Outcomes : Cloud technologies, App development

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Work environment is great, flexible timings. Agile development is followed.

Academic courses relevant to the project : C, OOP, DSA(not mandatory)

PS-II Station : Morning Star - Index Operations , Mumbai

Faculty

Name: Siddharth Mishra

Student

Name: SHAYAN CHOUDHURY (2016A1PS0621P)

Student Write-up

Short Summary of work done during PS-II : I worked on building indexes using SQL and Python. It is basically portfolio creation and weighting using Python by applying various filters on the initial universe of stocks like liquidity or marketcap and then selecting the top stocks and weighting them by float market cap or unique weighting. These are the kind of portfolios that we know as Sensex 30. We use SQL for getting the data and then build and backtest our portfolios using Python.

Tool used (Development tools - H/w, S/w) : Python, SQL, Excel

Objectives of the project : The objective was to build an index

Major Learning Outcomes : Index construction/Portfolio Construction, quant finance introduction, rules based portfolio creation, querying data and working with it

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Good environment, friendly and helpful people, good work culture

Academic courses relevant to the project : Derivatives and Risk Management, Computer Programming, Probability and Statistics, Optimisation, SAPM

Name: SHAYAN CHOUDHURY (2016A1PS0621P)

Student Write-up

Short Summary of work done during PS-II : I worked in New Product Development, Indexes. I initially worked on calculating float values by combing through annual reports. Then I worked on building a thematic index using python and sql. I built a monitoring system in sql for giving weekly updates on the condition of the databases and wrote scripts to streamline their data handling process.

Tool used (Development tools - H/w, S/w) : Python, sql, excel

Objectives of the project : To build an economically viable index with good return/risk profile

Major Learning Outcomes : I learnt a lot about the Indexing businesses and building indexes. Brushed up sql and python skills. Learnt soft skills and handling expectations of people around you.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : They expect you to be interested and fast at picking up things. Work environment is nice. People are helpful.

Academic courses relevant to the project : SAPM, Computer Programming, Derivatives and Risk Management, Probability and Statistics

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PS-II Station : Morningstar - Index Technology , Mumbai

Faculty

Name: Siddharth Mishra

Student

Name: UTKARSH MISHRA . (2016A8PS0428H)

Student Write-up

Short Summary of work done during PS-II : Finance, Client presentation, Competitor mapping, Automation

Tool used (Development tools - H/w, S/w) : VBA, Excel,SQL

Objectives of the project : Automation

Major Learning Outcomes : Finance and coding

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : Vey good, friendly

Academic courses relevant to the project : BAV, FM

PS-II Station : National Centre for Biological Sciences , Bangalore

Faculty

Name: R Bharathi

Student

Name: NIRUPAMA V HONNUNGAR (2015A5PS0865H)

Student Write-up

Short Summary of work done during PS-II : I genotyped hundreds of mice, collected tissues from a few narrowed down genotypes, fixed the tissue in paraffin blocks, Sectioned them, Stained and mounted them and observed them for physiological changes.

Tool used (Development tools - H/w, S/w) : Polymerase Chain reaction, Agarose Gel Electrophoresis, Paraffin Tissue Fixation, Tissue Sectioning, Hematoxylin and Eosin Staining.

Objectives of the project : To analyse tumours in genetically engineered Pancreatic tumour mice and stage them.

Major Learning Outcomes : Learnt a lot of Biochemistry techniques and tissue processing

Details of Papers/patents : N/A

Brief Description of working environment, expectations from the company : The work environment is extremely comfortable, everyone is very helpful. You are expected to be on time, be regular, be mindful of your peers, put effort into learning, participate in weekly discussion and contribute ideas. You should practice hard and pay attention when being taught so that you can start working on your own as fast as possible.

Academic courses relevant to the project : Molecular Biology, Biological Chemistry, Anatomy Physiology and Hygiene, Biochemistry, Instrumental Methods of Analysis, Microbiology, Medicinal Chemistry

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Name: NIDHEESH S (2016A5PS0564P)

Student Write-up

Short Summary of work done during PS-II : To optimize the over expression and purification of MCPH1 tBRCT protein to screen small molecular inhibitors targeting its phospho serine recognition through High Throughput Screening.

Tool used (Development tools - H/w, S/w) : AKTA Avant and Pure, TECAN Freedom EVO, Nanotemper Monolith nt.115

Objectives of the project : Optimizatoin of Overexpression and Purification of MCPH1 tBRCT protein.

Major Learning Outcomes : Protein expression and purification techniques

Details of Papers/patents : Nil

Brief Description of working environment, expectations from the company : The work culture is friendly, relaxed and productive. Seniors are open and honest for the communication and also are supportive, cooperative. State of the art facilities were provided.

Academic courses relevant to the project : Microbiology, Pharmaceutical Biotechnology, Biochemistry.

PS-II Station : National Council for Cement and Building Materials , Ballabgarh

Faculty

Name: M K Hamirwasia

Student

Name: K VENKATA HEMANTH KUMAR REDDY (2014B2A20746P)

Student Write-up

Short Summary of work done during PS-II : In this project, various blends of Portland Limestone Cement were made with varying percentage compositions of clinker, limestone and gypsum. Then, the physical and mechanical properties of these cement blends were tested as per procedures mentioned in various IS and ASTM codes. After that, the concrete made from these cements were tested for their fresh properties (such as slump, setting times, bleeding, workability) and hardened properties (such as compressive and flexural strengths, drying shrinkage, modulus of elasticity, density) and durability studies were performed on them.

Tool used (Development tools - H/w, S/w) : No hardware or software tools were used.

Objectives of the project : To design an IS code for Portland Limestone Cement.

Major Learning Outcomes : Important tests to be performed to check the durability of concrete were learnt. The importance of precision of data and testing accuracy and knowledge of test procedures and conditions for an R&D project was observed.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Work schedule is busy but organized. Individuals are expected to be punctual and disciplined. Target to complete tasks is given at the start of the day and accomplished tasks and backlog are expected to be reported at the end of each day.

Academic courses relevant to the project : Construction Materials

Name: ANKU KHANDELWAL (2016A1PS0490G)

Student Write-up

Short Summary of work done during PS-II : Designed methods for energy conservation in Indian cement plants

Tool used (Development tools - H/w, S/w) : MATLAB, MS Office

Objectives of the project : Recovery & Utilization of waste heat energy

Major Learning Outcomes : Energy Audit for big scale plants

Details of Papers/patents :

Brief Description of working environment, expectations from the company : They provide a variety of impactful projects (including working on Govt policy and regulation changes for cement industry) for all core branches.

Academic courses relevant to the project : Heat Transfer, PDP2

PS-II Station : National Instruments , Bangalore

Faculty

Name: Rekha. A

Brief write-up on PS-II station : The students are working in the area of verification/Validation, Reducing Cycle Time for Build Quality Feedback through Enhancement in Hardware & Software Infrastructure, Testing and implementation of Advance eXtensible Interface Weighted Random

memory Delay Module, Designing a wrapper component for CPUs, Providing Power support and managment capability from the firmware level to kernel level for latest hyperthreaded CPU Architectures designs of ARM etc. The students were given training on Labview in National Instruments. Students worked on various tools and languages like C, python, Linux/UNIX, verilog, computer architecture, shell scripting. Awareness of scripting languages, programming concepts and Computer Architecture are the areas the organisation is looking at for the various projects.

PS-II Station : NIVEA , Mumbai

Faculty

Name: Gaurav Nagpal

Student

Name: Parth Kadvekar (2015B3A40555G)

Student Write-up

Short Summary of work done during PS-II : Designing an automated, visible and systematic system using Microsoft 365 Tools like Power BI, Power Automate and Power Apps for promotion packs in NIVEA.

Tool used (Development tools - H/w, S/w) : Microsoft 365 Tools

Objectives of the project : Designing an automated, visible and systematic system using Microsoft 365 Tools like Power BI, Power Automate and Power Apps for promotion packs.

Major Learning Outcomes : Learnt Power BI, Power Apps, Power Automate.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Great work environment. I was the only intern and my manager was a good person.

Academic courses relevant to the project : Supply Chain Management

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PS-II Station : Nomura - FinTech , Mumbai

Faculty

Name: Siddharth Mishra

Student

Name: GOVARDHAN R . (2016A2PS0597H)

Student Write-up

Short Summary of work done during PS-II : The Fintech department aims to bridge the gap between finance and technology. It recognises the technological pain points of the various financial divisions in the firm and connects them with internal IT/external vendors for solutions.
The interns were allotted a project on Augmented Reality. Since it was a relatively unexplored theme in finance, a lot of effort had to go in for learning the tech from the start as well as in product development.
As part of 'business as usual', the interns collaborated with various divisions for adopting and proliferating digital tools. Extensive market research was done on new business models the firm

was looking for potential adoption. Various decks for presentation for the senior management were prepared.

Tool used (Development tools - H/w, S/w) : Excel, PowerPoint, Unity 3D

Objectives of the project : To get a hands on experience on a modern technology and it's relevance to the firm's business

Major Learning Outcomes : Being up to date with both financial markets and modern tech

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The company does not differentiate between a full time employee and an intern. The opinion of interns are always sought and valued during meetings and calls. The working hours are flexible. The managers and other employees are always willing to help. The expected deliverables are time bound but reasonable.

Academic courses relevant to the project : FOFA, Business Analysis and Valuation, Financial Management, Security Analysis and Portfolio Management

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Name: **PRASHANT JEEVENDRAKUMAR LONIKAR (2016A3PS0230G)**

Student Write-up

Short Summary of work done during PS-II : Work involved liasing with various divisions within the company to map out their technological needs and finding the relevant tools required to match the needs. Also performed market research for some projects and made an app for the annual technological fair of the company.

Tool used (Development tools - H/w, S/w) : PowerPoint, Excel, R

Objectives of the project : Collating the technological needs of the firm

Major Learning Outcomes : Exposure to various divisions within Nomura, interaction with clients and understanding workflow and decision making systems of large banks.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Very open environment, seniors are approachable.

Academic courses relevant to the project : Bit of Financial Management was required for one of the project.

PS-II Station : Nomura Global Finance , Mumbai

Faculty

Name: Siddharth Mishra

Student

Name: AYUSH KUMAR (2015B3A30514H)

Student Write-up

Short Summary of work done during PS-II : I worked with the product control department supporting Investment Banking Division of Japan region. My job was to maintain their databases which reflects the IB work. We handled all the P/L statements and associated

movements. I was also involved in the restructuring work and automation projects. I built certain reconciliation files for them.

Tool used (Development tools - H/w, S/w) : MS office (Excel, PowerPoint, Word, Outlook, SharePoint), Webex

Objectives of the project : Daily production of profit and loss reports

Major Learning Outcomes : Multitasking, Time management to deliver outcome, Accounting practices,

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : The work environment was very professional and the company expects you to take responsibility towards your job. You need to take initiative and be at your professional best.

Academic courses relevant to the project : FRAM, DRM, FOFA

Name: AKSHAY ANAND . (2016A2PS0577H)

Student Write-up

Short Summary of work done during PS-II : For the most part of the internship work mostly consisted of doing Deal Reviews of various trades which was the regular BAU (business as usual) and for the later part of the internship was working on the Amendment Analysis using Power-Bi as well.

Tool used (Development tools - H/w, S/w) : Sharepoint, Power BI, Excel, Alteryx

Objectives of the project : Daily business as usual and Amendment Analysis using Power-Bi

Major Learning Outcomes : Handling pressure situations and working with strict deadlines. An in depth understanding of practical aspects of how IB's middle offices work. Introduction into softwares like Alteryx, Power BI etc

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Work environment is professional at the same time people are friendly and nice. The team was supportive and stuck together. Team do have some expectations from you.

Academic courses relevant to the project : Derivatives & Risk Management

PS-II Station : Nomura Global Markets , Mumbai

Faculty

Name: Siddharth Mishra

Student

Name: NIKHIL GOYAL (2015B3A80674P)

Student Write-up

Short Summary of work done during PS-II : I worked under Nomura Global Markets division with ABS team. Under ABS, there are 2 teams. One works on loan financing and other works in strategy making for secondary debt capital market. My work was related with analysis of loan financed by Nomura. Here, analysis includes periodic assessment of payments made by clients and checking the parameters like delinquency, roll rate, charge off, interest payments, principal

payments, prepayments etc. I also worked with issuance of loans to new clients where I had a chance to work with a model which checks the eligibility criteria. I was also assigned some weekly reports where I had to go through various research reports and prepared a summary for risk teams.

Tool used (Development tools - H/w, S/w) : SQL, Microsoft Excel

Objectives of the project : Loan financing

Major Learning Outcomes : Understood the structure of loan financed by banks

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Working Environment is friendly and helpful. No one will treat you like an intern and you hold the sole responsibility of your work.

Academic courses relevant to the project : Financial Management

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Name: VAIBHAV RAJ (2015B3AB0527P)

Student Write-up

Short Summary of work done during PS-II : I was part of the CVA Trading desk (under Business Resource Management team) for Asia ex-Japan which also manages FVA for certain regions. Small team - 5 including me, out of which the 2 senior-most work from Singapore. Must be at the desk by 7.30 am IST. Similar to other GM profiles, I was assisting in the daily BAU and wasn't given a dedicated project for the duration of 5 months. My daily work included but was not limited to: Running/reporting risk numbers for the desk, corroboration and attribution of daily PnL with MO/Finance along with providing commentary, scenario analysis, monitoring intraday market movements (FIDs only) and hedging positions internally, pricing CVA/DVA/FVA charges for new trades with Asian counterparties. The team also works on a few strategies and takes up

ad-hoc projects- this is the more interesting part and you can actively involve yourself once you complete the earlier mentioned tasks.

Tool used (Development tools - H/w, S/w) : Excel, internal Nomura tools for pricing

Objectives of the project : Involved in daily BAU

Major Learning Outcomes : Understanding the major risks associated with products in credit/rates/fx. Being a part of the BRM team gives access to a lot of information which helps get a picture of the overall business of the firm in the AeJ region.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Treated like any other permanent employee and with that comes an expectation to deliver quickly as well as accurately. Also, a lot of responsibility as decisions will be made on the information you provide. Stressful at times, but worth it.

Academic courses relevant to the project : DRM, FRM

PS-II Station : Nomura Global Risk , Mumbai

Faculty

Name: Siddharth Mishra

Student

Student Write-up

Short Summary of work done during PS-II : Learnt about risk calculation methodologies, regulations and importance; understood various financial products and their data sourcing & management; BAU: generating reports, data cleansing, data provision; automation of tools used for reporting, risk calculation, data cleansing and data provision

Tool used (Development tools - H/w, S/w) : VBA, SQL, Python, MS Excel, Oracle DB, Power BI

Objectives of the project : Automation and improvement of team reports, migration from one data source to another

Major Learning Outcomes : SQL, Power BI Desktop, VBA, basic coding, organisational structure and work flow of Finance back office, regulatory knowledge of investment firms

Details of Papers/patents : N A

Brief Description of working environment, expectations from the company : The working hours are not very strict unless you stick to the your declared schedule, in place system for all work related necessities, friendly and young teams, helpful nature in regards with learners, open to new projects worthy for team

Academic courses relevant to the project : Financial Engineering, Derivatives and Risk Management

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Name: SAURABH KAUNDINYA PANNALA . (2016A3PS0895H)

Student Write-up

Short Summary of work done during PS-II : My work in Nomura was about the Risk management methodology. Our team here develops new risk hedging/mitigation techniques to curb the risk that the company poses while doing business.

Tool used (Development tools - H/w, S/w) : Python, VBA and R

Objectives of the project : Development of python tool to price an option

Major Learning Outcomes : I got to learn a lot about finance sector. Got hands on experience of various financial products, technology used here.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Working environment is very cool and my manger was very kind. He always helped me in understanding and getting adjusted with team. My other team members were also very helpful and never hesitated in helping me when asked.

Academic courses relevant to the project : Derivatives and Risk management

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PS-II Station : Novartis Healthcare Pvt. Ltd. , Hyderabad

Faculty

Name: R Bharathi

Student

Name: ROBIN ARORA (2015B1A10894P)

Student Write-up

Short Summary of work done during PS-II : I automated the whole market information summary report by drawing a flow sheet in alteryx software. Other than this I mapped wholesalers data with the raw data and then generated multiple presentations by Linking it to alteryx and thus sending daily reports.

Tool used (Development tools - H/w, S/w) : Alteryx advanced excel

Objectives of the project : To automate the market information summary report for Korea region

Major Learning Outcomes : Generated revenue of about 3000 dollars and reduce the time drastically

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : Work life was in balance and is one of the best companies where you can work at your own pace.

Academic courses relevant to the project : No

Name: CH BHARATH SAI SANTOSH . (2015B1A40814H)

Student Write-up

Short Summary of work done during PS-II : My work mostly included the analysis of data using excel, python and R

Tool used (Development tools - H/w, S/w) : Excel, Python, R, SQL

Objectives of the project : Business Insights

Major Learning Outcomes : Analysis, Time Management and Team Work

Details of Papers/patents :

Brief Description of working environment, expectations from the company : An excellent work environment. All the employees are friendly and always ready to help.

Academic courses relevant to the project : Probability and Statistics, Machine Learning

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PS-II Station : Nreach Online Services Pvt. Ltd. , Bangalore

Faculty

Name: Lucy J. Gudino

Student

Name: JATIN KUMAR YADAV (2016A8PS0395G)

Student Write-up

Short Summary of work done during PS-II : I individually called and contacted close to 120 brands for alliances and partnerships with the companies. I converted 10 of them that increased the revenue of the company. I also worked on affiliate marketing and brought in close to 400 functional links from various brands that resulted in an increased inflow of money for the company. It is very good for the company as there are no manual efforts included in these links

once they are made live. Approximately 80 of them have already been made live and the rest are in the process of agreement and approval. I also worked in the Marketing and Product teams, in which I increased the Domain authority of the company from 38 to 44. The Domain authority increases on a logarithmic rate and hence, the increase is massive. This was achieved through on-page and off-page SEO (Search Engine Optimization).

Tool used (Development tools - H/w, S/w) : SEM RUSH, SALES QL, VBA

Objectives of the project : To increase the brands in the company and automate processes

Major Learning Outcomes : Learned SEM Rush, Excel VBA and analytics. Also gained professional skills such as company calling and negotiations

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : The organization is a startup which as about 200 employees. They have offices spread across three buildings in HSR Layout in Bangalore. The workplace is small but comfortable. You get to work with various departments and people from different concentrations. The work is mainly related to automation, alliances, marketing, and sales. Location is good as there are a lot of food joints nearby and other PS Stations as well. There are a lot of PG and houses for rent nearby and so it is easy to get a house near the company offices.

Academic courses relevant to the project : Effective Public Speaking

PS-II Station : Nucleus Software Export Ltd , Noida

Faculty

Name: Ritu Arora

Student

Name: ASAF AHMAD SHAYAAN (2016A3PS0247P)

Student Write-up

Short Summary of work done during PS-II : Parsing of SQL queries and creating excel, Parsing of Java File. Modification of an existing screen

Tool used (Development tools - H/w, S/w) : Antlr, Program Structure Interface, Spring Boot.

Objectives of the project : Automation

Major Learning Outcomes : Improves programming skills, Learned new technologies

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment was quite good, Seniors were helping.

Academic courses relevant to the project : Data Structures and Algorithms, OOP, Compiler(Optional)

Name: PRAKHAR RANJAN (2016A3PS0253P)

Student Write-up

Short Summary of work done during PS-II : Design a Question Answering System based upon intent based search point to a paticular unique answer and not to a set of answers.

Tool used (Development tools - H/w, S/w) : Eclipse IDE,WinSCP,Putty

Objectives of the project : The aim of the project was to get answers to any intent based question upon pre-defined text.

Major Learning Outcomes : Got to learn about designing of User Interface,ajax calls,maven project designing,API designing and training and testing neural network models.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Nucleus Software is an Indian IT company in the Financial Services sector.The working environment is good as the mentors are helpful and so are the sub-mentors.We got to work in the R&D team of the company.

Academic courses relevant to the project : Machine Learning

Name: SHAKUL SHARMA (2016A8PS0343P)

Student Write-up

Short Summary of work done during PS-II : My project was vehicle monitoring system .The project keeps a track of the cars that are inside the company premises.if a car enters then the count is incremented.it is a extension to the faredge application.it is related to object detection.

Tool used (Development tools - H/w, S/w) : Java,spring boot,opencv,python

Objectives of the project : This project is aims to track the number of spots filled.

Major Learning Outcomes : I learned python,java,spring framework and basics of ML

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment is very good.you have lots of free time if you joined this company.you can get PPO if you worked hard.

Academic courses relevant to the project : Neural net and fuzzy logic

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PS-II Station : Nutanix Technologies India Pvt. Ltd. , Bangalore

Faculty

Name: Chandra Shekar R K

Student

Name: KAMAL A (2015B1A70306G)

Student Write-up

Short Summary of work done during PS-II : Nutanix is a fast growing company in the fresh new field known as cloud computing. It has crossed more than one billion in market value within ten years. It has achieved this feat keeping the employee comfort as paramount. Free food that can give a four star hotel, a run for its money, re-imbursement for cabs, flights are few of the attractive benefits that lure in employees from elite companies like Amazon and Oracle. Nutanix is like the horn of Cornucopia when it comes to the welfare of employees.
I got hired as Intern as part of the practise school program. Since I did not have to cross the rigorous interviews and myriad tests, I was grateful to be here. I was assigned as part of Xi-infra team. The team takes care of management of data center services. I was assigned a task to

automate the setting up of a data center . The project was a full stack learning experience. There was development and ingenuity involved in making the workflow, some automations to make life easier and a bit of testing too.

In the end, I got to setup an actual data-center using the package that I made. It was a good experience where I learned valuable skills for working in an IT industry as well as an ignoble comfortable lifestyle. The important lesson is difference between the code of an undergraduate and an IT professional. While the novice can do away with concepts of abstraction, encapsulation and dump his code into a single file, the professional makes a well-listed code with intricate file dependencies to ensure that these concepts are implemented.

Tool used (Development tools - H/w, S/w) : Canaveral ,CircleCI, Git, PyCharm IDE

Objectives of the project : Develop of client to bootstrap a new datacenter

Major Learning Outcomes : Professional way of writing code with emphasis on concepts like abstraction, encapsulation and linting .

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Free food that can give a four star hotel, a run for its money, re-imbursement for cabs, flights are few of the attractive benefits that lure in employees from elite companies like Amazon and Oracle. Nutanix is like the horn of Cornucopia when it comes to the welfare of employees.

Working environment depends on your team. Fortunately for me, my mentor was a kind man. He guided me through the whole project with unfaltering enthusiasm.

Academic courses relevant to the project : Computer Networks, OOP

Name: Abhinav Hans (2015B2A30869P)

Student Write-up

Short Summary of work done during PS-II : I worked as a full stack developer in the SaaS team, though my work was more of UI work than the backend. As a part of the team, I went through the whole process of bringing data from the db to the backend, to the graphql layer and then to the UI which is quite a learning in itself. My major development tasks included:

1. Building a dynamic quote questionnaire in which the fields appear on the basis of the prices, types of products and the discounts applied on the product. It was a very interesting task and took some time to complete as there were a lot of corner cases and validations required.

2. Making UI pages for various kinds of products and writing the graphql queries for getting data from the backend.

3. Inline editing of quote line prices, discounts and quantities: It has to be the highlight of the internship work and I was appreciated for this.

In total, the work was web development with my part stressing on ReactJs and GraphQl. The work was completely deadline driven with daily scrums and a totally professional environment. Was given all the help and support I needed to do my bit.

Tool used (Development tools - H/w, S/w) : Visual Studio Code, IntelliJ Idea CE, Robo3T, DBeaver, Postman, ElasticSearch

Objectives of the project : Building a quote price configure product(Xcelerate)

Major Learning Outcomes : I had never coded in JavaScript and was straightaway thrown into UI using ReactJs and using GraphQl. Setting up the project(Rules engine, SpringBoot microservices, UI, Graphql, ElasticSearch) itself took a week. The learning curve is super steep here.

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : The working environment of the company is top class. Most of the teams and the work is amazing too. Most of the very experienced employees are very humble. You can expect quality work here, be it any domain.

Academic courses relevant to the project : OOP, OS, DBMS.

Name: MAYANK . (2015B2A70759H)

Student Write-up

Short Summary of work done during PS-II : I was assigned to the CALM (Cloud Application Lifecycle Management) team. The team mainly works in Python, Golang (back-end) and React.js (front-end). The first task was to implement a simple API in Python, for which I had to work with Flask. After that I had to write a plugin as a part of a new repo, using Golang and PostgreSQL for db; after this, I was regularly assigned tasks associated with that repo, writing a few other components and writing build scripts, Jenkins integration for the various components of the repo. Overall, it was quite a learning experience as my work involved working with various open-source tools (eg: OpenAPI generator) and participate in the various discussions with PMs related to my projects.

Tool used (Development tools - H/w, S/w) : Python, Flask, Golang, REST, OpenAPI, Jenkins, Shell scripting, Git

Objectives of the project : Approval Plugin for the Plugin Framework

Major Learning Outcomes : Worked with various open source tools, learned certain industry conventions regarding coding, designing APIs.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : My team can be easily counted amongst the ones with the best work environment here, be it the co-workers, manager, or the quantity of work. Regarding expectations from the company, we had a talk by Nutanix at our campus in the last semester, where the emphasis was on how Nutanix treats its interns as employees, and initially, there may be some difficulty in adjusting to the work. It was actually true. Also, it helps if you've done courses like networks and software engineering (but your proficiency in CS subjects won't matter, if you get lucky with the team allocation process).

Academic courses relevant to the project : Computer Networks, Operating Systems, Software Engineering, Data Structures and Algorithms, Database Systems

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Name: CHANDRAHAS ABBURI . (2015B5A70626H)

Student Write-up

Short Summary of work done during PS-II : I worked on automation of satadom breakfix. This is used to host hypervisor in datacenters and the above procedure fixes a corrupted or broken one in multiple ways.

Tool used (Development tools - H/w, S/w) : Python, shell scripting

Objectives of the project : Complete automation of testcases

Major Learning Outcomes : Testing framework in companies

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Working environment is very good. Supportive colleagues

Academic courses relevant to the project : Python , OOPS

PS-II Station : Nvidia Graphics - Hardware , Bangalore

Mentor

Name: Kaustubh M Vaidya (Director, HW Engineering)

Mentor comments: Major tasks done:

    1.Create infrastructure for analyser and self-checking tests to verify the infrastructure

    2.Building infrastructure for Performance monitor testing

    Along which them Kuleen help with some minor tasks as well to offload some team members

Below are some of the key characteristics we saw over the course of the internship and some of the criteria's we used to gauge the intern

•   Improvement over the time, Kuleen has improved and showed that he can work independently over the course of internship

•   Proactive and asks relevant questions to understand the bigger picture of the assigned task and how it contributes to the project

•   Maintains detailed notes on tasks and takes feedback once tasks are done to improve on things

•   Motivated to finish assigned tasks on or before time

•   There were few instances where he showed out of the box thinking to come up with smart solutions to the problems faces

•   The tasks were completed on or before time with good quality

•   Showed good communication and understanding skill while learning about the assigned tasks by asking relevant questions. Was able to communicate what he is trying to do when getting help from other team members

Name: Ashok Almeida (Senior Manager, CPU Division)

Mentor comments: Siddharth work on coherent interconnect verification during his internship in Nvidia. Siddharth quick to ramp up on Nvidia verification methodologies, showed a lot of interest in understanding the design functionality.

Some of his achievements were :

•   He came up with a flow/process to measure the testbench performance.

•   Worked on stimulus development for verifying a coherent 2D mesh network

•   Coded a checker in SystemVerilog/UVM for an ordering block.

Things which we look in interns:

•   A keen interest to develop better understanding the Hardware design and verification methodologies.

•   Sound basics in computer architecture, exposure to CPU pipelining, caching & coherency, paging concepts will help.

- Some basic exposure to Verilog and System Verilog.

- **Good problem solving skills.**

Name: Saifuddin Ameen (Systems Engineer)

Mentor comments: Pratyush was a good intern hire for Nvidia. He has good understanding and learning and debugging skills.

He was assigned the task of primarily coming up with a quasi automation tool which would reduce the overall "man-hours" associated with regular tasks in our team.

He understood the problem statement very well, had inquisitive interactions with us and gained knowledge about what are the finer details of our tasks and came up with the tool which fits the bill very well.

We at Nvidia broadly look at interns with "fresh mindset" coming directly out of college and must be open to learn new technical topics and "ramp up" to the industry work culture.

Pratyush is self-motivated and strives for task completion. He has all the qualities that is required to be successful in hardware or software industry.

Faculty

Name: Brajabandhu Mishra

Brief write-up on PS-II station : The Hardware division of NVIDIA Graphics, Bengaluru deals with architecture, design, development and verification work related to GPUs and SoCs of NVIDIA. The work requires expertise in Digital Design, VLSI Design, Architecture Modelling of chips, Synthesis, Low Power Design, Circuit Design and Place and Route of complex VLSI chips. A large chunk of the work at each stage of the Chip involve Verification and Validation. Since the complexity is very large, entire design and verification process require a lot of automation. Hence such a work demands expertise in various scripting languages like Unix Shell Scripting, Perl, Python and Tcl/Tk. Programming languages like Verilog, System Verilog, System C and C++ are necessary for design and verification of such complex circuits. Knowledge of Computer Architecture is essential for working in NVIDIA chips. Of course it is known that the interns may not have expertise in all of the mentioned topics. But it is expected that the interns should be fairly good in on Digital Design, Computer Architecture, Microprocessors, Verilog, Unix Shell Scripting, C++ etc. Knowledge on Python, Perl, Tcl/Tk, System Verilog, System C, Low Power VLSI

design will definitely reduce the ramp-up time. Moreover enthusiasm to learn, faster ramp-up, proactiveness, a positive attitude are must have qualities required for the industry. NVIDIA Authorities are quite helpful supportive in integrating the student interns into the mainstream activities. The interns work on live projects of NVIDIA and they often interact with the teams located across globe. Indeed it is a great opportunity for an intern to work in NVIDIA Bengaluru (both Hardware and Software divisions).

Student

Name: KULEEN JAIN . (2015B1AA0819H)

Student Write-up

Short Summary of work done during PS-II : Majorly the work done was to build TestBench and Verification infrastructure for RTL designs using UVM methodology and System Verilog

Tool used (Development tools - H/w, S/w) : H/w:- UVM, System Verilog, Perforce, Unix

Objectives of the project : To Verify RTL design of MSS NVlink unit

Major Learning Outcomes : Flow of UVM methodology, Understanding of System Verilog, Debugging techniques and tools like Verdi, Perforce, Flow of code and interfaces in NVIDIA

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : Working environment was worthy of the company's status. My team, including manager and mentor were helpful throughout. Their was ample focus on understanding concepts and then applying them. Even, there were enough recreational activities to balance work culture.

Academic courses relevant to the project : Computer Architecture, Operating Systems, Digital Design, ADVD

Name: KUSHAL BERIA (2016A3PS0118G)

Student Write-up

Short Summary of work done during PS-II :

Tool used (Development tools - H/w, S/w) : Linux, Python, Perforce, Confluence, MS Office

Objectives of the project : GPU Performance Verification

Major Learning Outcomes : Learnt how does corporates carry out the work, level of professionalism, a more interactive way of approach to problems and new methods.
The primary job at NVIDIA was to work with the performance verification team. It mostly comprised of running various …

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working culture is very good. The colleagues are very supportive and willing to teach. The hierarchy is very structured and the treatment and respect is the same for an intern as well as the directors. The working hours are flexible too.

Academic courses relevant to the project : Computer Architecture, Microprocessors and Interfacing, Programming, Optimization

Name: Dhruva Barfiwala (2016A3PS0135G)

Student Write-up

Short Summary of work done during PS-II : The project involves redesign of the PCIe iLA Configuration tool, and creating a class for the code-base to facilitate reusability for other tools through inheritance. The primary aims for creating a new tool are two-fold: providing an intuitive,

user-friendly interface for the engineer, and improving maintainability by making it easier for developers to support future releases. This was done by implementing principles of Object Oriented Programming, cleaning up the existing code-base and writing new code wherever necessary

Tool used (Development tools - H/w, S/w) : Python 3, Bash, Confluence, Perforce, VHDL

Objectives of the project : Design of GUI Based Tool

Major Learning Outcomes : Python 3

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : The work culture at NVIDIA was very conducive for productivity. Everybody ranging from my manager to the HR department were always on hand for assistance. The working hours are flexible and there is regular feedback from authority figures to help you improve the quality of your work. The company didn't have any prior academic expectations. My manager gave me ample time to acquire the necessary skillset for my project.

Academic courses relevant to the project : None

Name: NAVEEN JAIDEEP SRINIVASA (2016A8PS0223G)

Student Write-up

Short Summary of work done during PS-II : The idea behind this project is to design a serial communication interface between data converters (ADC, DAC) and logic devices (FPGA). Instead of generating the Register Transfer Level(RTL) using the traditional approach by handcoding the design in Hardware Descriptive languages, a popular methodology called High Level Synthesis is being used to do the same. This methodology uses C++ as the Design coding language and tools like Catapult Synthesis to convert the C++ code into HDL(Verilog)

files. This reduces the effort of hand coding and the understanding of the design code becomes much easier. The Catapult Synthesis also checks for HLS coding violations and other errors in the design and generates an optimized RTL with a report containing the record of the entire synthesis process.

Tool used (Development tools - H/w, S/w) : C++, Verilog, Catapult Synthesis, Tcl scripting

Objectives of the project : To create RTL design of a serial data interface using High Level Synthesis and analyze the results and statistics

Major Learning Outcomes : High Level Synthesis, Object Oriented Programming

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Nvidia is one of the best companies in its domain and has a wide range of interesting projects. You will be treated as an employee and the projects provided will surely help boost your knowledge. People here are always willing to help you regardless of the complexity of the issue. The working environment is really great! Flexible timings, no unrealistic deadlines(but they do expect you to get good results), and the most important part, Free lunch and snacks!!

Academic courses relevant to the project : Digital Design, Object Oriented Programming, MuP

PS-II Station : Nvidia Graphics -Software , Bangalore

Mentor

Name: Chinmay VS (Functional Lead, TSE-Foundation, NVIDIA)

Mentor comments:

1.   What are the key results the intern has delivered?
•   Development and Porting of profiling and validation tools.
•   Familiarity with Python and C++.
2.   What are the main strengths (skills & behaviour) demonstrated during this internship?
•   Attention to detail.
     -Properly understands why an experiment/task is being performed.
•   Confident and Assertive enough to get his doubts clarified immediately.
     -Has often chosen properly (in multiple instances) to
          when to try figure out stuff by himself
                    vs.
          when to ask and learn quickly.
•   Diligent
     -Ability to perform related/follow-up activities(and not just blindly perform what was assigned).
     -Followed-up with folks from other teams
to get the necessary design-clarifications and code-reviews for his tasks.

3.   What areas need improvement?
•   Competency in the following areas is not yet evaluated
as the internship period did NOT cover extensive activities in these areas.
     -Fundamentals of Operating Systems and Embedded-Systems.
     -ARM architecture.

Name: Kirankumar Bobbu (Sr. Systems Engineer, Automotive System S/W Div.)

Mentor comments: Work done: Safety certification for "verification tools used to verify QNX BSP".
As part of this, all evidences are created for certification spanning from Requirement to verification of tool.
He also worked on fixing Coverity issues in source.

Highlights of major achievements: He was able to ramp up quickly by grasping embedded concepts. He also identified/fixed many bugs within tool and its design.
Outstanding student characteristics: Keen listener and good understanding skills.

Expectation from interns: Good analytical skills, C language skills, understanding of embedded Linux/QNX concepts.

Faculty

Name: Brajabandhu Mishra

Brief write-up on PS-II station : The Software division of NVIDIA Graphics, Bengaluru deals with architecture, design, development and verification work related to the software solutions for Automotive based on NVIDIA chips. The work requires expertise in C & C++ programming, Operating System, Linux internals, Build systems, Computer Graphics and Multimedia, Machine Learning and Deep Learning. Since the complexity is very large, entire design and verification process require a lot of automation. Hence such a work demands expertise in various scripting languages like Unix Shell Scripting, Python etc. Knowledge of Computer Architecture is also essential. Knowledge of good coding practices, adherence to associated standards and software engineering processes are necessary for building large and complex software like the ones this team develops. Moreover enthusiasm to learn, faster ramp-up, proactiveness, a positive attitude are must have qualities required for the industry. NVIDIA Authorities are quite helpful supportive in integrating the student interns into the mainstream activities. The interns work on live projects of NVIDIA and they often interact with the teams located across globe. Indeed it is a great opportunity for an intern to work in NVIDIA Bengaluru (both Hardware and Software divisions).

Student

Name: ASHUTOSH JHA (2016A3PS0115G)

Student Write-up

Short Summary of work done during PS-II : Development, Testing and Documentation of 'CPU Clock Attribute Verification' and 'CPU Core Usage Statistics' tools using python programming language. Boot KPI data collection and analysis. Boot KPI optimization using experimental C/C++ code patches on source code.

Tool used (Development tools - H/w, S/w) : Python (Modules: logging, pandas, matplotlib, OS etc), C, C++, Shell Scripting, Excel, Linux, Nvidia Soc Boards, phidget and other peripherals.

Objectives of the project : Development, Testing and Documentation of python tools for 'CPU Clock Attribute Verification' and 'CPU Core Usage Statistics'. Boot KPI data collection and analysis. Boot KPI Optimization.

Major Learning Outcomes : Operating Systems, Python, Linux.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Amazing work environment and ethic. Great mentor-ship and inclusion experience. Great interaction and learning opportunities.

Academic courses relevant to the project : Operating system, Computer Programming, Object Oriented Programming.

Name: Shubham Mittal (2016A3PS0162P)

Student Write-up

Short Summary of work done during PS-II : I was expected to carry out profiling of various software tools used by Nvidia for testing of Tegra chiip which would enable them in increasing their market share and develop confidence in the tool produced.

Tool used (Development tools - H/w, S/w) : Vecorcast, Squore

Objectives of the project : Profiling Of Software Tools

Major Learning Outcomes : Basic C language, shell scripting, Workings of softwares- Vecorcast, Squore

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment is great at Nvidia.

Academic courses relevant to the project : C programming, OS

Name: GOVIND RAMCHANDRAN (2016A3PS0190G)

Student Write-up

Short Summary of work done during PS-II : The work mostly involved fixing violations of coding guidelines in embedded Automotive software. It involved scripting, C programming and using Static Analysis tools.

Tool used (Development tools - H/w, S/w) : C programming language, Linux shell scripting, Static Analysis tool

Objectives of the project : To conduct Static Analysis of the functional safety of automotive software

Major Learning Outcomes : C programming basics, Linux scripting, operating systems

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment is good, with flexible working hours, subsidised breakfast, lunch and snacks, transport, etc provided. Work isn't very hectic, with team members willing to help interns in any way necessary.

Academic courses relevant to the project : C programming, OS, Data Structures, Shell scripting

PS-II Station : OfBusiness , Gurgaon

Faculty

Name: Sugata Ghosal

Student

Name: AAYUSH ATTRI (2016A8PS0421P)

Student Write-up

Short Summary of work done during PS-II : Majority of work was to crawl tender data from government portals, which would be shown on the company's online portal. I also worked with the product team to formulate data for a new machine learning project.

Tool used (Development tools - H/w, S/w) : JAVA, Redis, Excel, Spring Boot

Objectives of the project : Make the company's online tender portal 'bidassist' a one stop solution to all the needs of the contractors.

Major Learning Outcomes : Software Development, product development

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment is pretty laid back and there is no pressure or formalities. You can talk freely with your team and the CTO. Everyone in the company is serious about providing the best experience to the customers and expect the same from you. Odd Saturdays are working.

Academic courses relevant to the project : OOP, DSA

PS-II Station : Oyo Rooms (Tech) , Bangalore

Faculty

Name: Lucy J. Gudino

Student

Name: SRIJAN SONI (2016A4PS0328H)

Student Write-up

Short Summary of work done during PS-II : My project involved working with Oyo Life Backend Services.
- Added functionalities like Guest Move In, Guest Move Out, Inventory Correction in the Oyo Life Consumer App.
- Developed an Offline Tickets Download feature in Maestro Website.
- Developed an App Rating Feature in the Oyo Life App which significantly increased the rating from 2.8 to 4.1 after the release.
- Worked with Monitoring tools like Grafana to improve the performance of the Oyo Life Maestro app.

Tool used (Development tools - H/w, S/w) : Java, Spring Boot, Postgres, MongoDB, Python, Kubernetes, Jenkins, AWS

Objectives of the project : Adding more functionalities and Improvements in the consumer-facing Oyo Life App and staff-oriented Maestro App and Website.

Major Learning Outcomes : The main learning outcome was working with the microservice architecture which is increasingly becoming popular nowadays for stability, maintainability and performance purposes. Learnt essentials of backend development, writing optimised production ready

Details of Papers/patents :

Brief Description of working environment, expectations from the company : There are no formal projects for the interns and no official training period as such. The interns are expected to work with normal employees starting with small tasks and later on big tasks as they become familiar with the tech stack. Working environment is very good. Working hours are flexible. The teams are well balanced and the mentors are very helpful and approachable.

Academic courses relevant to the project : OOPS, DBMS

PS-II Station : OYO Tech , Gurgaon

Faculty

Name: Sugata Ghosal

Student

Name: KARTIK KUMAR (2015B3A80212G)

Student Write-up

Short Summary of work done during PS-II : I was involved in multiple projects which involved backend as well as frontend development. Backend development was done in Java whereas frontend development was done in Ember.Js which is built on JavaScript. I was a part of the Operations Technology team. My team was responsible for all the platforms built for room level as well as hotel level auditing of all the OYO properties all over the world. I was responsible for creating a full stack webpage for automating the whole process of creating Audit Configurations. I also worked on a new incentive plan for Property Manager of a hotel where he/she would get incentives proportional to the number of walk-ins on that hotel. This project was done in Ruby.

Tool used (Development tools - H/w, S/w) : Java, Ruby, JavaScript, Ember.JS, IntelliJ, VS Code

Objectives of the project : Explained above

Major Learning Outcomes : Learnt how to write clean code. Learnt new technologies. Learnt new ways to solve a problem.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Good work environment. As long as your work is on time, no one is going to say anything.

Academic courses relevant to the project : OOP

Name: SHIVAM THAKUR . (2016A3PS0879H)

Student Write-up

Short Summary of work done during PS-II : The PS was wonderful. I got PPO in it.

Tool used (Development tools - H/w, S/w) : SpringBoot, Ember.js, Javascript, MongoDB, Postgresql, Java

Objectives of the project : Backend and Frontend Development

Major Learning Outcomes : Software Development

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : Working Environment is very good. Also, working hours is flexible.

Academic courses relevant to the project : Object Oriented Programming

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Name: YASH SARAWGI (2016A8PS0198P)

Student Write-up

Short Summary of work done during PS-II : - Developed backend for referral program: A refers B, both are rewarded on signup and checkout as per the existing scheme running in their segment.
- Fullstack development of the Audit platform for scheme change in different segments. The platform automated the task of scheme change by the business; where on request for a change, an approval link is mailed and the scheme replaces the previous active scheme.

Tool used (Development tools - H/w, S/w) : SpringBoot, JAVA, PostgreSQL, Redis, Angular, AWS, Kubernetes, Jenkins, Git, Postman

Objectives of the project : Build Referral Program (similar to that in GPay) where both referrer and referee are rewarded based on the scheme running in their country and an Audit platform for change in schemes.

Major Learning Outcomes : Fullstack development with very good opportunities in both Backend and Frontend. I worked mostly on Backend and had opportunities to work on AWS and kubernetes both, but that is completely dependent on random team allotment.

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : There are definitely ample opportunities to learn and I strongly recommend this PS station if that is your goal. But at the same time, there are issues in terms of structured operation of the tasks, as in my team after the development of the complete task, on the day of final presentation seniors were discussing the layout of the project from scratch and wanted the 6 months task to be delivered in a week.

Academic courses relevant to the project : OOP (Design Patterns), OS (may be), rest they give time to learn once you join. So, no prior preparations if you are well versed with at least one language.

Name: TUSHAR AGARWAL (2016A8PS0362G)

Student Write-up

Short Summary of work done during PS-II : Backend development of features in SpringBoot JAVA and frontend development in React JS.

Tool used (Development tools - H/w, S/w) : IntelliJ IDE,Webstorm IDE,DataGrip

Objectives of the project : Introduction of new features and design revamp of Partner Page

Major Learning Outcomes : Design pattern, SpringBoot framework, React JS

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : The working environment is very healthy and supportive. All the teammates are very knowledgeable in the field and help at every step to get the best out of you.

Academic courses relevant to the project : OOP,DBMS,DSA

Name: KOLLURU KAILASH SAMPATH GURU SAI (2016AAPS0210H)

Student Write-up

Short Summary of work done during PS-II : SAP Syncing Stability

Tool used (Development tools - H/w, S/w) : AWS, KAFKA, HIVE, RUBY ON RAILS

Objectives of the project : Syncing Accounting formats to Sap after Validating the data

Major Learning Outcomes : Skill to Develop Application, Ownership, AWS, Kafka

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : Its a wonderful experience that PS2 has enable me to explore industrial presence.Regarding Company culture, Very Encouraging and supporting working environment. Ownership is most important while making an impact with your work which I learnd a lot from team. We are always welcomed to give new and unique ideas.

Academic courses relevant to the project : Dsa, Oops, Os

PS-II Station : OYO Tech , Hyderabad

Faculty

Name: Chennupati R Prasanna

Student

Name: YASH SHARAN (2015B2A80719G)

Student Write-up

Short Summary of work done during PS-II : Worked as a full stack developer in the Supply chain management teach team.I worked on development of various features foe their Unified ordering platform called OYOsis.

Tool used (Development tools - H/w, S/w) : Spring Boot, React Js ,Apache Kafka, Apache thrift, AWS

Objectives of the project : Development for various features for the SCM team's ordering platform.

Major Learning Outcomes : Learned front end development using React and Back-end development using Java

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment was very friendly with flexible working hours. The team assigned to me was also very friendly and helpful.

Academic courses relevant to the project : Object Oriented programming, DBMS

PS-II Station : Petasense - Services & App Development , Bangalore

Faculty

Name: Raja Vadhana P

Student

Name: SAILESH REDDY SIRIGIREDDY (2016A3PS0170P)

Student Write-up

Short Summary of work done during PS-II : This Project is a bunch of features in which you can be expected to work on writing APIs, managing database, creating dynamic UI components and also fixing bugs. I worked on creating a Trusted device Two factor authentication system for login , changing the Email service to sendgrid-python and creaeting multiple UI components for Webapp.

Tool used (Development tools - H/w, S/w) : Python, JavaScript, ReactJs, AngularJs, Flask, Celery, Robot, Cucumber, Postgresql etc

Objectives of the project : Make workign APIs and UI Components as per requirements .

Major Learning Outcomes : Learnt a lot in the field of Full Stack Web Development, Optimization techniques, Version control systems, HTML, CSS, Database management, writing modular code. How to manage , estimate tasks

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : Petasense is small startup with around 12 developers in india. Employees are friendly , willing to solve doubts

and are passionate about their work. You can expect a good experience with overall product design and learning to write production ready code, following best practices and being involved with all stages in development. Expect to take up responsibility of some really cool features.

Academic courses relevant to the project : Computer Programming, Object Oriented Programming, Datastructures and Algorithms

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Name: ROHAN SHANKAR . (2016AAPS0220H)

Student Write-up

Short Summary of work done during PS-II : Primary project was related to full stack web development where we had to develop features as per the requirements. Their main app has its frontend written in ReactJS, D3.JS and the backend written in Flask.

Tool used (Development tools - H/w, S/w) : AngularJS, ReactJS , Python , Robot Framework , Cucumber , Gherkin , Celery, Postgresql.

Objectives of the project : To develop web application features as per the requirements.

Major Learning Outcomes : Learnt a lot in the field of full stack web development, optimization techniques, version control system, good practices to write modular code with documentation and finding out about the work process and how to manage, estimate time for your tasks.

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : Great work environment. Every member of the team is extremely approachable and eager to help. You will definitely get to work on features that are significant to the company. No matter what work you're assigned, you will definitely learn a lot.

Academic courses relevant to the project : : Object oriented programming, DBMS , Machine Learning

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PS-II Station : Piramal Group , Mumbai

Faculty

Name: Ankur Pachauri

Brief write-up on PS-II station : Essential prerequisite courses required before working on the project
Python,Pandas,VBA, Machine learning, python, R and excel
Essential Tools Required to work on the projects
Python, Excel, MySQL, R
List the set of on campus courses taught which were useful in executing the project
Neural Networks
List the set of courses not studies but might have been useful in doing the project
DSA,DAA, ML, FoDS, DBMS

Student

Name: RISHABH JAIN (2016A7PS0058P)

Student Write-up

Short Summary of work done during PS-II : A bank statement analysis procedure was required by the team at Piramal. Some existing methods generated by an outside vendor were used, and other new methods were generated. Using these rules, a fraud detection model was created by building frequency variables and scoring applicants on it. Other projects on account reconciliation, report summarisation and duplicate payment detection were done.

Tool used (Development tools - H/w, S/w) : Pandas, Fuzzywuzzy, Pandas, Excel

Objectives of the project : Fraud Detection using bank statement analysis

Major Learning Outcomes : Domain knowledge of banking, data analysis, fuzzy logic

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : Office timings were moderately flexible. Total of 9 hours work in a day was expected from every person, but there was some flexibility in the time of entry and exit. The team was helping and motivated.

Academic courses relevant to the project : Foundations of Data Science

Name: PRANAV TANEJA . (2016A7PS0096H)

Student Write-up

Short Summary of work done during PS-II : Mostly automation work using python, VBA and Microsoft excel. There was one very small analysis project. You just need to know one library of python, watch one course of VBA from coursera and you can do the work.

Tool used (Development tools - H/w, S/w) : Python, excel and vba

Objectives of the project : Make a tool which takes some excel sheets as inputs and outputs some excel sheets

Major Learning Outcomes : VBA in Microsoft office.

Details of Papers/patents : N/A

Brief Description of working environment, expectations from the company : Good working environment. You will learn how to deal with clients. Flexible hours are there but you need to work 9hrs a day.

Academic courses relevant to the project : --

Name: AEKANSH . (2016A7PS0127H)

Student Write-up

Short Summary of work done during PS-II : Projects related to Data Analytics were allotted. In my first project I had to cluster Strings into groups and find a pattern in every bucket. I used Affinity Propagation and Edit distance. I also built a Random forest classification model to detect frauds early on by using their Application data. Another project required me to build a Neural Network from scratch to classify receipts into various buckets. I also did a project to automate resource allocation optimally. In all of these projects I had to do data preparation, Model selection, Optimisation of the model and thorough analysis of the results. I got a good experience of how Data scientists do their work in the real world.

Tool used (Development tools - H/w, S/w) : Python, Excel, XML

Objectives of the project : 1) Clustering of strings using ML 2) Fraud detection model using ML 3) classification of Strings using Neural Network 4)Optimal Resource allocation

Major Learning Outcomes : How to build, select and optimise ML models. Data Preparation, Feature selection and Analysis of the results

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working hours are flexible as long as one works for 8+ hours. The Managers and Mentors are very helpful and knowledgeable. They were very professional and guided me well. They were

friendly and were understanding whenever I had a problem outside of the office. The Office is well lit with Natural light and we all get our personal work station.

Academic courses relevant to the project : ML, FoDS, DSA, DBMS, OS, Programming with C

PS-II Station : PricewaterhouseCoopers (PWC) , Gurgaon

Faculty

Name: Gaurav Nagpal

Student

Name: YASH SAKHARE (2016A2PS0825P)

Student Write-up

Short Summary of work done during PS-II : Consultation on Government Projects. The work was more concentrated on secondary research and data analytics. It comprises of rigorous analysis on upcoming government projects in railway stream and providing consultation on traffic and financial accessibility of the project

Tool used (Development tools - H/w, S/w) : MS Excel and MS Word

Objectives of the project : The projects included traffic study and its future profit to the government organisation (railways in person). The project also included providing consultation on financial accessibility to the projects

Major Learning Outcomes : Some of the major outcomes included the understanding government dealings. Shear understanding of the corporate world and professionalism included. Understanding on how top consultancies work throughout the world

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The work environment is quiet decent. The team in which I worked was very supportive. They understood the problems that are faced by a an engineering undergraduate and helped me a lot in understanding the work culture

Academic courses relevant to the project : Airways, Railways, Waterways

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Name: PRANAV BANSAL (2016A4PS0363P)

Student Write-up

Short Summary of work done during PS-II : Different Projects I have been a part of during my PS-2 are:
1) Made a tool using VBA programming in excel which reduced the time to make project CV by 95%.
2) Developed a Market Entry Strategy for a Oil Company
3) Did a Financial Feasibility Analysis for a proposed Company
4) Did Market Demand Assessment for a Company
5) Developed a Gas Market Strategy for a European Country

Tool used (Development tools - H/w, S/w) : Microsoft Excel, Microsoft PowerPoint, Optimization Tools

Objectives of the project : Client Deliverables

Major Learning Outcomes : Decision Making skills, Strategy making, Time Management, Teamwork

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Work Environment is very Positive. You need to be Proactive and initially interact with everyone to get yourself involved early in a project. If you prove that you are dependable and accountable then you will get to work on Live projects also that are going on in the team. You will also get to be the part of Client Meetings where you can directly interact with the client. You will also get to travel a lot to different PSU's where again you will get a chance to Interact with People. PwC Gurgaon is a Front End Office unlike other consulting firms in the same building. In the same building, you will find people from BCG, BAIN, KPMG, Deloitte and if you are an extrovert you can get benefitted from it.

Academic courses relevant to the project : Supply Chain Management, Engineering Optimization, Fundamentals of Finance & Accounting, Business Analysis and Valuation, Derivatives & Risk Management

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PS-II Station : PricewaterhouseCoopers (PWC) , Mumbai

Faculty

Name: Pavan Kumar Potdar

Student

Name: AKSHAY MAHAJAN (2016A2PS0347P)

Student Write-up

Short Summary of work done during PS-II : I was part of 2 projects. One was based on Thought Leadership and the other was a client-site project. During the initial days, lots of research work was done for collecting the data from reliable sources. Excel model was made by me to analyse the results. The client-site project was of Management Consultancy background. I made some excel tools for the client which will be used by them throughout their offices across the country.

Tool used (Development tools - H/w, S/w) : Ms-Excel, Ms-Powerpoint, Excel Solver and ThinkCell

Objectives of the project : Comparative cost analysis of different modes of transport technologies and arriving to the result that which technology will be successful by what time and in which states of the country.

Major Learning Outcomes : Soft skills developed- Advanced excel with VBA coding and macros.
Presentation skills- due to regular exposure with client, deliverables had to be presented frequently.
Analytical skills- The amount of data which was to be analysed was humongous.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : PwC is one of the 'Big Four' company hence professionalism in the work environment can be expected which even reflects when you join them. The employees are friendly and always ready to help and guide you. In return, the expectations from you is dedication, quality ouptut and commitment.

Academic courses relevant to the project : None. The only thing expected from you is a strong thought process on how you tackle the real life problems.

PS-II Station : Publicis Sapient , Bangalore

Faculty

Name: Akanksha Bharadwaj

Student

Name: EDIGA HARISH GOUD . (2016A7PS0110H)

Student Write-up

Short Summary of work done during PS-II : we had a hands on training for 1 month , after that I am with hiring team where i worked on IVR (Interactive Voice Response) on AWS cloud to check the interview scheduling and confirmation of candidate and on Automatic Resume score which scores the resume for a particular job description and suggest the best suitable one.

Tool used (Development tools - H/w, S/w) : AWS, Java ,Python,spring boot.

Objectives of the project : To automate the works of Hiring Team.

Major Learning Outcomes : We got hands on how the AWS services works and what are the challenges in the process and learnt many new libraries in python.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : We got the first hand experience of how MNC works and the culture of the sapient is very great , people are friendly and are approachable ,you will be directly be under some director level or senior manager and will guide through whole journey . Many new technologies will be learnt in journey

.Company expects us to be thinking out box attitude and hunger for learning and dedicated to given work . As an intern they expected /pushed towards more learning and exploring the projects .

Academic courses relevant to the project : OOPS,DSA,IR,Data Mining,Cloud computing .

Name: PARTH GOYAL (2016A7PS0116P)

Student Write-up

Short Summary of work done during PS-II : Tech Stack - Spring Boot, React JS, Mockito, Logging Students are allotted different projects and they have to deliver PoCs based on the problem statement given. Training of one month in Java and related concepts.

Tool used (Development tools - H/w, S/w) : Java, TDD, Maven, Spring, React, Node

Objectives of the project : Build a recommender system

Major Learning Outcomes : Full Stack and DevOps

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Work culture is decent, and learning experience was good.

Academic courses relevant to the project : OOP, DSA

Name: Shourya Pratap Singh (2016A8PS0333P)

Student Write-up

Short Summary of work done during PS-II : I built a chat-bot that enabled one to perform different tasks like creating or updating a Jira issue, raising a request to DOJO, use Bamboo and it's features and get reports on the projects.

I also helped build a resume parse which could extract information like colleges, work experience, skill etc from a resume, convert it all in numerical format and decide whether the individual is suitable for a particular role.

Tool used (Development tools - H/w, S/w) : Java, RASA Framework, Python 3, React, PostgreSQL, AWS

Objectives of the project : Build a one stop solution for Jira and DOJO Tools

Major Learning Outcomes : The major learning outcome from the internship was that it gives you the experience of working on a deadline which we may not experience anywhere else.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment is good. PPO is given if you clear a coding test, a technical round and finally an HR round.

Academic courses relevant to the project : OOP, Machine Learning, Information Retrieval

Name: PRAJAKTA SUNIL DESHPANDE (2016A8PS0733G)

Student Write-up

Short Summary of work done during PS-II : IT, Software Development: My project was a large scale project where I was to develop a feature for the tool on which the whole team was working on each of its aspect. I worked on the design and the back-end development of the feature which was to be deployed for real time use.

Tool used (Development tools - H/w, S/w) : Java, Eclipse IDE, Non relational database scripting, Spring Framework

Objectives of the project : Develop Role Based Access Control Framework

Major Learning Outcomes : The whole development process of a Software

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Very collaborative and Interactive Team, encouragement to Perform your best and also helps in overall soft skill development of an individual, with various sessions conducted for the same

Academic courses relevant to the project : OOP, DSA ,DBMS, ML(partially)

PS-II Station : QUANTIPHI , Mumbai

Faculty

Name: Vijayalakshmi Anand

Student

Name: NIKHIL GUPTA (2016A3PS0243P)

Student Write-up

Short Summary of work done during PS-II : Explored various ways of reducing the inference and training time of a Machine learning model. Implemented Tensor flow serving and Tensor RT optimisations on company's various model.

Tool used (Development tools - H/w, S/w) : Docker, python, keras, onnx , tensorflow

Objectives of the project : Reducing the inference and training time of a Machine learning model.

Major Learning Outcomes : Learned about the optimisation of various ML models

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Not much facilities but the learning curve is high

Academic courses relevant to the project : Machine Learning, Foundation of data science, AI

PS-II Station : Qubole , Bangalore

Mentor

Name: Mr. Rajat (Senior Manager)

Mentor comments: Students are interactive and knowledgeable. They are proactive in solving the tasks on time. Students should be from computer science discipline. Here they learn all the latest technologies related to data.

Faculty

Name: Uma Maheswari N .Natrajan

Brief write-up on PS-II station : All the three stations are software based organizations. The general expectations from stations are students should be from computer science background (Qubole) and if not, they should have done electives or acquired enough skill sets on Python, Java, Database, Spring, Hibernate etc

Student

Name: SATULURI SAI SRI ABHIRAM . (2015B2A70746H)

Student Write-up

Short Summary of work done during PS-II : I interned in the admin team. This team mostly takes care of the administrative responsibilities like account creation, account updating, assigning roles, policies and editions for accounts etc. My work involved backend development of qubole interface. My work was majorly on the improvements of account flow and other minor modifications

Tool used (Development tools - H/w, S/w) : QIB(Qubole in box), Vagrant, Ruby On Rails, Postman, Sequel Pro

Objectives of the project : Obectives involved modifying the account flow

Major Learning Outcomes : Understood how the real industry works and learnt how to write industry level code

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : The work environment was pretty friendly and the timings were very flexible.

Academic courses relevant to the project : DBMS, OOP, DSA

Name: AJITESH SINGLA . (2015B4A70575H)

Student Write-up

Short Summary of work done during PS-II : I worked in ACM team which deals with clusters. I had to work on a new feature that had to be introduced.

It was majorly related to handling AWS resources and configuring them to the required specifications to use the new feature. Other than this some basic work was always given at the side line.

Tool used (Development tools - H/w, S/w) : Aws console, boto3, JIRA, BitBucket, python, ruby

Objectives of the project : Completing the phase one of a new feature

Major Learning Outcomes : Standard coding practises, team work, ruby, managing large code base and understanding it

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : The work environment here is very friendly. People are very helpful. As an intern, I think people had the right approach towards my expectations. But even though as an intern, your opinions are taken seriously and thought over before taking a step in doing something.

Academic courses relevant to the project : OOPS, C Programming, DSA, DBS

Name: Yashdeep Ramesh Thorat (2015B5A70675H)

Student Write-up

Short Summary of work done during PS-II : I worked on optimizing and creating new ETLs(Extract Transform Load Pipelines) to check the status of other ETLs. Worked on Data Validation for the data sent to the customers after analyzing the cluster metrics and data.

Tool used (Development tools - H/w, S/w) : Hive, Hadoop, Python, Scala, Java, Spark, Airflow

Objectives of the project : Optimize and validate existing ETLs

Major Learning Outcomes : Data Processing and Analytics for Big Data

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : Working environment was free and flexible. My team members were helpful and very supportive. Lots of opportunities to learn at Qubole. The company works on cutting edge technology and encourages experimenting on new things.

Academic courses relevant to the project : DBMS

PS-II Station : RACEnergy , Hyderabad

Faculty

Name: Belde Vinay .Balde

Student

Student Write-up

Short Summary of work done during PS-II : My work involved firmware development for ARM microcontrollers using C. I developed and used driver files for various STM32 microcontroller peripherals. One of my projects was to develop firmware for microcontrollers in smart battery packs.
I also developed a PCB using Altium Designer for an ideal diode circuit with load switching.

Tool used (Development tools - H/w, S/w) : Keil IDE, Altium Designer, C programming, Git

Objectives of the project : Firmware Development and testing for ST microcontrollers; Ideal Diode Circuit Design

Major Learning Outcomes : Learnt about ARM M3/M4 architecture, Firmware development using C, PCB Design

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Being a startup the work environment is flexible within deadlines. Employees are very friendly and helpful. My mentor provided constant support when I was stuck and guided me in the right direction.

Academic courses relevant to the project : Embedded Systems Design, Computer Programming, Data Structures and Algorithms

PS-II Station : Reflexis Systems India Pvt Ltd. , Pune

Faculty

Name: Vijayalakshmi Anand

Student

Name: SHREYASH MISHRA . (2015B2A20805H)

Student Write-up

Short Summary of work done during PS-II : Worked on time series forecasting using deep learning methods alongside basic NLP elementary data analysis

Tool used (Development tools - H/w, S/w) : Python, pandas , jupyter notebook

Objectives of the project : Develop a model for time series predictions

Major Learning Outcomes : Learnt about deep learning methodologies

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Really relaxed and open environment with no pressure

Academic courses relevant to the project : None

Name: AKARSHIT JAIN (2016A8PS0448P)

Student Write-up

Short Summary of work done during PS-II : My project gives details regarding implementation of features like Aggregation Query, Purge Service, Logging, Testing in the form of API for Employee Performance Platform developed by Reflexis from tools like Spring boot, JAVA8, MongoDB

Tool used (Development tools - H/w, S/w) : Spring boot, JAVA8, MongoDB

Objectives of the project : Make services and features for Employee Performance Platform

Major Learning Outcomes : Learnt to work on a big project as well learnt lot of new technologies and how they are used in industry.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Working environment is very good. There is a great work life balance. Company and their employees are great too. Everything is great.

Academic courses relevant to the project : Object Oriented Programming

Name: NAREN SURAMPUDI . (2016AAPS0206H)

Student Write-up

Short Summary of work done during PS-II : Was assigned to the Analytics team with my mentor based in the US. Worked extensively in the domains of Natural Language Processing, Deep Learning and Time Series Forecasting. The first project involved using various ML techniques combined with NLP to conclude whether we can predict the delay of project execution at the store level using comments and other project relevant information internal to a company. The findings of this project were part of the CEO's keynote during Reflexions 2019, the company's annual product showcase event. The second project involved developing various Deep Learning Models for Time Series Forecasting. This involved developing and

experimenting with various types of ResNets, GRUs, clustering of time series using Dynamic Time Warping and consequently using the clusters for building super multi-unit models. Also briefly worked in the area of ABTesting.

Tool used (Development tools - H/w, S/w) : Python, Jupyter, Spark

Objectives of the project : To conclude whether comments can be used to predict delays in store-level project execution and developing deep learning models for time series forecasting

Major Learning Outcomes : Major experience in predictive analytics, Natural Language Processing and extensive research and development of Neural Networks for Time Series Forecasting

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Comfortable working environment. The office is not very big and the facilities are a bit lacking as compared to most medium-big companies. The amount of work you get depends a lot on the team you are allocated. In my case I was allocated a team that was developing a new product which also happened to be the Analytics team and a mentor who was a Data Scientist in the US team due to my past experience in the domain. This gave me ample opportunities to work on a research-based project in the domain of my choice. Work timings are flexible for most of the part unless you have meetings scheduled with someone based in the US, in which case you might have to stay late for most of the time.

Academic courses relevant to the project : Neural Networks and Fuzzy Logic, Information Retrieval, Data Mining, Machine Learning, Foundations of Data Science

PS-II Station : ReportGarden Technologies Pvt. LTd. , Hyderabad

Faculty

Name: Chennupati R Prasanna

Student

Name: UMATHE PRAJWAL DEVENDRA (2016A8PS0381P)

Student Write-up

Short Summary of work done during PS-II : I was the part of the Migration team which had the task to shift all the companies clients onto their new Platform from the old one as the company was acquired by US based Tap-clicks. The work wasn't much intense as they already had the new platform somewhat ready , primary work included finding major bugs and testing the new platform through recreating clients profile

Tool used (Development tools - H/w, S/w) : SMA , Reportgarden App , SQL , Excel

Objectives of the project : Migrating Clients and recreating their data from Old Reportgarden app to new SMA app and rectifying few minor bugs.

Major Learning Outcomes : basics of SQL , SEO

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The people are friendly and there are frequent fun activities going on . You can also find few Bitsians as employees and have conversations.

Academic courses relevant to the project : OOP , OS

PS-II Station : Robert Bosch Center for Cyber Physical Systems , Bangalore

Faculty

Name: Satya Sudhakar Yedlapalli

Student

Name: KUSHAGRA SHARMA (2016A3PS0269P)

Student Write-up

Short Summary of work done during PS-II : Project allocated here is development of text search module on IUDX catalogue. Text search is an important feature to help the customer search through catalogue for required data. MongoDB, a database management software, is used for this purpose. Vertx is a tool used to host server to help MongoDB perform search operations. Text search was implemented using Vertx based on MongoDB.

Tool used (Development tools - H/w, S/w) : MongoDB, Vertx, Java, OpenStreetMap

Objectives of the project : Development of Text Search Module for IUDX Catalogue

Major Learning Outcomes : Applications of database management systems, MongoDB, Vertx

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment is good. Mentor was helpful in guidance and regarding clarification of doubts. Every person is very helpful regarding problems faced.

Academic courses relevant to the project : Database management systems, OOP

Name: BAASIT SHARIEF . (2016AAPS0209H)

Student Write-up

Short Summary of work done during PS-II : The work was related to Computer Vision and Deep Learning. I had to implement a YOLOv3 model in tensorflow, and optimize the whole model for deployment using nvidia's inferencing library, i.e. TensorRT.

Tool used (Development tools - H/w, S/w) : H/W - PC w/ RTX 2080 S/W - Python, Tensorflow, nVIDIA TensorRT

Objectives of the project : Deployment of the Traffic Analytics Model

Major Learning Outcomes : Practical usage of Deep Learning, How to tackle different problems faced during training phase of the model, Accelerating inference with TensorRT

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment is very nice. People are encouraging and there are no fixed timings. Since, it's more of a research lab, the scope of learning is very high.

Academic courses relevant to the project : Neural Networks and Fuzzy Logics, Machine Learning

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PS-II Station : Samsung Semiconductor India R&D Center-Hardware , Bangalore

Faculty

Name: Anita Ramachandran

Student

Name: ANKIT AGARWAL (2015B1A30644P)

Student Write-up

Short Summary of work done during PS-II : I was in Analog Chip Designing Team. The first project was about the simulation and analysis of Error Amplifier used in Buck Convertor. All its parameters and specifications were determined, like Stability Margins, PSRR, Open Loop Gain by doing DC , AC, and Transient analysis.The second project was about the Analysis of the Power Stage of the Buck Convertor, where I found the dead time, efficiency of the power stage for a given duty cycle and the losses that occur in the power stage.

Tool used (Development tools - H/w, S/w) : Cadence-Virtuoso, Simulation and Analysis Environment, Custom Wave Viewer, Linux

Objectives of the project : To understand as to what all things are kept in mind by a designer while designing any circuitry which is chosen to accomplish any particular functionality

Major Learning Outcomes : Came to know as to why that design for Error Amplifier and Power Stage was chosen. My analysis gave an insight to Samsung as to what all things need to be kept in mind while Designing Power Stage and Error Amplifier for Buck Convertor.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The work culture was quite good. A mentor was assigned for me who would guide me in doing simulations required for doing the project and also for making testbenches required for the simulation. PPO

will depend on your performance, how independently you can work, how well are you able to meet deadlines, all these things do matter. In Analog Teams, they generally look for experienced and learned people, so you would need to be thorough with your technical knowledge in Analog Domain and show them that you are quite interested in working in this domain, if at all you get to work in an Analog Team.

Academic courses relevant to the project : Power Electronics, Microelectronic Circuits, Analog Electronics, Analog-Digital VLSI Design

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Name: AKARSH AGARWAL (2015B2A80805P)

Student Write-up

Short Summary of work done during PS-II : I was a part of Flash Memory IP Verification team and I worked on the formal verification of debug structures, to verify whether the debug information from the internal logic is available at the output of registers based on programmable selections. The intent was to automate this process and lower the dependency and unnecessary troubles of using simulation based methods.

Tool used (Development tools - H/w, S/w) : UVM, SimVision, JasperGold

Objectives of the project : Automate the verification of debug structures by using Formal verification tool

Major Learning Outcomes : Got to know about Formal Verification and its benefits over traditional simulation based verification techniques.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The work environment is good. They treat you as an employee from the first day itself (don't worry, not in terms of expectations but in terms of accesses provided)! You will be provided enough time to

get accustomed to the tools and to learn what you need to learn. Be professional, work hard to prove your worth to the corporation and rest assured that you will reap what you sow!

One thing I would like to point out is that SSIR generally announce PPO results for BITSians around May. So if you are interning here from July-December, you will get your PPO result only at the end of next semester (even if you are a single degree student)!

Academic courses relevant to the project : Digital Design, ADVD

Name: PUNEET SINGH (2015B4A30663P)

Student Write-up

Short Summary of work done during PS-II : Inferencing and acceleration of pre-trained neural network models on Android devices can be done using Neural Network API. NNAPI provides a base layer of functionality for higher-level machine learning frameworks such as Tensorflow Lite. The tflite model for image classification is inferenced on CPU, GPU and other hardware accelerators. Also I did some scripting work.

Tool used (Development tools - H/w, S/w) : Android device, Command shell, C++, Python, Bash

Objectives of the project : Inferencing of neural network models on Android device

Major Learning Outcomes : Inferencing of neural network models on Android device

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The team members are willing to help and it's a good environment to learn and explore new things.

Academic courses relevant to the project : NA

Name: VEDANABHATLA SAI SUDHIR . (2016A8PS0386H)

Student Write-up

Short Summary of work done during PS-II : I have been working in the IP development of Samsung Semiconductors. Initially, I worked on some samsung tools and then I have worked with Analog IC design team. I have worked on development of 6-bit R-2R ladder DAC to study if its performance is better than the one they are currently using i.e R ladder DAC. Also, some statistical analysis is done to check stability and required precision for the DAC. After that, I have been given small tasks like apl and lib generation.

Tool used (Development tools - H/w, S/w) : Cadence development tool, Crossfire, Silicon Smart, Redhawk-Apache, Linux.

Objectives of the project : To study the R-2R ladder DAC and its performance in comparison with R ladder DAC. Extension of 6-bit DAC to 8-bit and further to check for its precision and stability with statistical analysis.

Major Learning Outcomes : IC design, IP development, workflow in the semiconductor industry, steps followed in developing a design.

Details of Papers/patents : None.

Brief Description of working environment, expectations from the company : There is good working environment and technical culture. There are always some sessions and activities going on which help us to learn new things and explore. There are also some special HR sessions for support. All the employees are friendly and are willing to help in case we have any doubts or queries. I really enjoyed working with these people here at samsung semiconductors and learned a lot of new things and practical application of things I learned. Hence, people who want to build career in the semiconductor industries, this should be their number 1 choice for their practice school station.

Academic courses relevant to the project : Analog Electronics, Analog and Digital VLSI Design.

Name: **ROHIT VENKATESH (2016A8PS0450P)**

Student Write-up

Short Summary of work done during PS-II : I was a part of the storage controller team within Memory division. This team works on implementing and testing different storage protocols which shall, I guess, later be used in Solid state drives (SSDs) produced by Samsung if the results of testing are satisfactory and meets the market requirements. I was a part of a live project from day 1 and involved with generating header files to be used for firmware, testing the protocol on FPGA boards and learning various tools on the go.

Tool used (Development tools - H/w, S/w) : Xilinx Vivado, Vivado Lab, SDK, Magillem, Visual Studio

Objectives of the project : To test a new link layer protocol, with NVMe as the standard application layer protocol and check it's feasibility for commercial use in the years to come

Major Learning Outcomes : Learnt various HW and embedded SW related tools.

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : The company is very good. Work load depends on the team. If the team feels you are working efficiently, you'll be given further tasks and that should be a good indication for you to understand what the team thinks of your performance.

Academic courses relevant to the project : Microprocessors and interfacing, Computer Architecture, Digital Design, Mobile Telecommunication Networks.

PS-II Station : Sattva Media & Consulting Pvt Ltd , Bangalore

Faculty

Name: Gaurav Nagpal

Student

Name: ABHINEET NAYYAR (2016A3PS0262G)

Student Write-up

Short Summary of work done during PS-II : I was part of a project with one of the leading philanthropic foundations in the country. My work involved analyzing the market's current landscape, conducting secondary and primary research and creating appropriate analysis frameworks for the collected data. In addition to that, I was also part of the deliverable preparation team, wherein I was entrusted with writing major sections of the final report, and providing support to my team members, wherever necessary.

Tool used (Development tools - H/w, S/w) : Microsoft Office
Social Cops
Zapier
Pipedrive

Objectives of the project : To create a toolkit that would inform the ecosystem players about a specific phenomenon in the giving market

Major Learning Outcomes : I got to work extensively on my problem-solving skills, and have definitely come out with a more analytical frame of mind than before. I feel that it was a great experience in terms of exposure in a field that I want to pursue in my future.

Details of Papers/patents : As part of the project, we prepared a DIY toolkit and a larger report to analyze a particular funding technique for SPOs to leverage, in order to raise more funds.

Brief Description of working environment, expectations from the company : The work environment at Sattva is definitely very employee-friendly. Although the offices have shared work spaces, this induces discussions and interactions between everyone, hence improving one's interest in the work. Moreover, because of the conduction of regular update meetings and catch-up sessions, one feels connected with the company and the work that they do, and hence drives further to bring impact.

Academic courses relevant to the project : If the empathetic part is to be concerned, it would definitely help for one to go through more Humanities courses, for they provide you a social angle to problems.
In addition to that, it would definitely help if the university would bring in more proble

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PS-II Station : Servicenow Software Development India , Hyderabad

Faculty

Name: Y V K Ravi Kumar

Student

Name: PRIYADARSHI . (2015B2A30707H)

Student Write-up

Short Summary of work done during PS-II : The project aimed to develop a tool to do sentiment analysis of Slack Channels, Facebook posts and Portal Feedback. The whole aim was to develop a data-driven feedback mechanism so that it helps in making better decisions. I used Keras and Tensorflow to develop a neural network that could predict the sentiment of any sentence. The model was also interfaced with ServiceNow's platform.

Tool used (Development tools - H/w, S/w) : Python, Powershell, JavaScript

Objectives of the project : To do sentiment analysis of the Slack channels, Workplace comments, portal feedback and all other relevant sources.

Major Learning Outcomes : Learned about creating ML models, powershell scripting.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Work Environment is good as expected. If project is related to the team's work, people will give sufficient attention on your work. Office culture is peaceful.

Academic courses relevant to the project : Basic ML knowledge is required, along with a decent skill level in Data Structures.

Name: BARASHNABIN ROY . (2015B5AA0625H)

Student Write-up

Short Summary of work done during PS-II : I worked on two projects in my PS2. The first one revolves around making an app that autofills the on-boarding forms, through pictures of ID cards. OpenCV in python and java for image processing, microsoft azure's REST call for OCR, and the widget in the front end were used. For the classification of different types of ID cards

through OCR, cosine similarity and template matching were used. An in-house OCR server using Flask, running Tesseract, was also built in CentOS. The java class was exposed to the Rhino. Few images were also trained, as template detection.

The other project involves image processing too. The aim was to recognise the structure and fields, and the key and the value pair, of a form. The form may be hand-drawn, or printed, empty or filled with all kinds of information. The contours are found using opencv, and processed using different algorithms and novel transformations. Using a new technique that I developed, the application can intelligently recognise the contours, and map it accordingly to the texts, even for hand-drawn dummy forms. Django in CentOS along with Django Rest framework were used as backend, and widget with JS and AngularJS was used in the front end. There are few elements of NLP too, while parsing the texts.

Tool used (Development tools - H/w, S/w) : Microsoft Azure apis, Flask, Django, Jupyter, Tesseract, CentOS in VM, OpenCV, Matlab

Objectives of the project : The main objective was to develop a product that might help with the user experience and the workflow; using OCR, what all different things that can be done.

Major Learning Outcomes : Analysis of data, proper pipeline creation, presenting and pitching while giving demos, integration of different technologies together, developing a product with the client side usage in mind

Details of Papers/patents : An existing image processing algorithm on transformations was modified accordingly to recognize intricate shapes

Brief Description of working environment, expectations from the company : The working culture is good, help is always available, and all the facilities needed for a good work life balance is given, including many perks. Because of this, the expectation is reasonably high, as the work involves product development, and it also demands good presenting and pitching skills. Frequent standups and demos would be asked, for proper selling of the product.

Academic courses relevant to the project : OOPs, OS, Image Processing, DBMS, ML, Data Mining, Communication and Networks

Student Write-up

Short Summary of work done during PS-II : I had been taken into a team named Service Portals which comes under emerging interfaces(A platform of Service Now) where I was helped the team solving the bug fixes and involved in the writing automation test cases

Tool used (Development tools - H/w, S/w) : Eclipse IDE , Visual studio code , Service Now Platform

Objectives of the project : To resolve the bugs that causes the product defects

Major Learning Outcomes : Javascript , Selenium , HTML , CSS , Angular JS

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The co-workers were so friendly and interactive , helped and guided me throughout the past 6 months a lot. It was my immense pleasure to work with this peers

Academic courses relevant to the project : Data Structures and Algorithms , Object oriented programming

PS-II Station : Siemens PLM Software , Pune

Faculty

Name: Sudeep Kumar Pradhan

Student

Name: Vanshika Singh (2015B3A80516P)

Student Write-up

Short Summary of work done during PS-II : When a user of the Solid Edge platform saves its 2D/3D design from Solid Edge file format to a neutral file format the user wants all the information of its design to remain unchanged. I made necessary changes in the existing code base to test the working of the translation process .I added test cases and ATP (Automatic testing platform) for the added test cases on a host application to verify the translation process and I also implemented ATP framework for data migration from Solid Works to Solid Edge and added test cases to test the migration process.

Tool used (Development tools - H/w, S/w) : Solid Edge, Solid Work

Objectives of the project : Reduction in manual testing time,Regression catch

Major Learning Outcomes : C++, Soft skills- Teamwork, work ethic, responsibility, time management

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment is very conducive and people in the company are helpful and easily approachable. Facilities such as gym, food and transportation provided by the company are good. The weather of Pune remains pleasant most of the time.

Academic courses relevant to the project : Object Oriented Programming

Student Write-up

Short Summary of work done during PS-II : My first project was Adding / Improving (the efficiency of) features to Active Workspace based on user requirement. Active Workspace is one of the major products of Siemens. It is an intuitive user interface that connects to Teamcenter and lets you view and create data in your enterprise's product lifecycle management (PLM) system.

First feature was to restore a product session in Active Workspace based on user input such that when the product is opened for the first time it opens in Default Configuration and next time is automatically restored. Defaullt Configuration is the one already defined by the framework.

Second feature was to pin elements / products in Active Workspace such that element along with its parent object is pinned to the home-screen. On opening the pinned configuration, it should be restored back to the point where it was pinned which included the base element with its entire configuration.

Second project was using various Profiling Tools in Visual Studio in order to track the CPU and Memory Usage of various blocks in Active Workspace server side code in order to optimize the same .

Tool used (Development tools - H/w, S/w) : Programming Languages Required : Angular JS , C++

Tools : Microsoft Visual Studio , Visual Studio Code .

Objectives of the project : Implementing new features in the web-client (Active Workspace) and Profiling , Optimizing the server code for Active Workspace.

Major Learning Outcomes : Usage of Delegates in json.

Deep understanding of Service Oriented Architecture .

Client-Server framework .

Frontend and Backend development .

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Great working environment ! The team along with the employees are extremely supportive and ready to help at any point of time although they do expect you to take initiative on your own . Excellent place to work in terms of work life balance and have lenient time restrictions . If you are really enthusiastic about taking up a certain project you can negotiate with the HR people and they pretty much allot the kind of work you would prefer . The company has scope for both data-science (Machine Learning etc) as well as Software Development .

Academic courses relevant to the project : OOPs (in c++ preferred) , JavaScript / AngularJS , Data Structures & Algorithms

PS-II Station : Skoda Auto India Pvt. Ltd. , Mumbai

Faculty

Name: Samata Satish Mujumdar

Brief write-up on PS-II station : All three station had different work environments, aurangabad-manufacturing and production, skoda chakan- localisation and indigenous products development, Mumbai- sales services and marketing, lots of excel sheet analysis part

Student

Name: SAURAV SHAKTI BORAH (2015B5A40747P)

Student Write-up

Short Summary of work done during PS-II : Created VBA macros for preparing and sending the Parts, Accy., and Oil Business, Pending Cars, Budget and IACS Scores report automatically to the department as well as the respective dealers.

Helped in monitoring and improving scores for IACS by working with the dealers to identify unsatisfied customers.

Prepared a detailed standard manual to maintain uniform Q-check for all dealers. Monitored weekly Q-check progress and worked with the West Zone ASMs to improve the degree of fulfillment.

Prepared several reports like Accy. Kit Dispatch, MOS, Car Down, Tyre Sales, Escalation matrix and iService usage report.

Prepared an Excel Dashboard to monitor target vs offtake (business), Q-check, IACS dealers ranking and Aftersales Throughput both dealer wise and zone wise.

Tool used (Development tools - H/w, S/w) : Microsoft Excel, Powerpoint, Internal Databases like DMS, SAP and MQCP.

Objectives of the project : To help improve Quality as well as Degree of Fulfillment of Q-checks carried out in workshops. To work closely with Customer Support teams of Workshops by helping them revise QFB scores of IACS customers.To code Macro scripts for automating Weekly After S

Major Learning Outcomes : Increase the efficiency of Dealer workforce on matters like Q-check and Customer interactions. Introduce Macro scripts to help prevent the wastage of valuable time in carrying out repetitive tasks.

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : Working environment was very relaxed and friendly. In my department, i.e. After Sales, there was routine work daily like preparing weekly reports or keeping track of different initiatives like IACS, Q-Check, Excallation matrix, etc. During the internship, major part of our work was based on Microsoft Excel. I got to learn many new functions and features within Excel like Pivot Table, Graphs, Dashboards, etc.

I also learned a new computer language called VBA which was used in Excel to prepare scripts called Macros to run automated tasks like preparing reports and sending automated specialized mails.

I learned new things in terms of life skills like creativity, decision making, problem solving, critical thinking and professional ethics.

The internship also helped me in improving my soft skills like oral, written, non-verbal skills during the execution of the various projects as I interacted with the dealers and management directly.

The open learning environment that existed between the team members and within the organization was very encouraging which allowed me to communicate freely and understand how corporations work.

The internship also helped me learn time management. The fixed schedule of work from 9 to 6 pm allow me to set a proper time table for the day by maintaining a balance between your work and personal life, without harming any of them.

Academic courses relevant to the project : Principal of Economics, PPC

PS-II Station : Solar Energy Corporation of India , Delhi

Faculty

Name: M K Hamirwasia

Student

Name: ROHAAN SAWANT (2016A2PS0865P)

Student Write-up

Short Summary of work done during PS-II : I had to design Field Quality Assurance Plans (FQAP) for construction purposes. FQAP is very important document that helps in smooth communication of designers and site engineers. It is also used in maintaining the quality of work done on the site. I studied the existing versions of FQAPs, identify and analyze their limitations. I then studied the tenders, relevant IS codes and other reference documents and try to increase their scope.

Tool used (Development tools - H/w, S/w) : MS Word, MS Excel, MS Powerpont, AutoCAD

Objectives of the project : To design Field Quality Assurance Plans (FQAP) for construction purposes

Major Learning Outcomes : In-depth knowledge of designing and practical aspects of construction, the problems faced

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The company environment is good. Everyone in the office is extremely professional and helpful. The employees are extremely motivated, disciplined, dedicated and knowledgeable.
The work given is challenging but at the same time not very stressful. Students interested in company's field of work can learn a lot.

Academic courses relevant to the project : Foundation Engineering, Design of Concrete Structures, Design of Steel Structures, Surveying, Fluid Mechanics, Hydraulic Engineering, Construction Planning and Technology.

PS-II Station : Splash Math , Gurgaon

Faculty

Name: Sonika Chandrakant Rathi

Student

Name: SWAPNIL MATHUR (2016A7PS0074P)

Student Write-up

Short Summary of work done during PS-II : Created a service for Push Notifications using AWS SNS in Java in first project. Then created a mailing service to send offer mails to the users in second project. Then created licence and subscriptions for premium users using Stripe and Java in third project.

Tool used (Development tools - H/w, S/w) : Spring framework, IntelliJ framework, Thymeleaf, AWS SNS, PostGreSQL, Postico, Stripe, Airbrake.

Objectives of the project : To send push notifications to users.To send offer mails to users.To create licence and subscriptions of premium users.

Major Learning Outcomes : Learnt how to work in teams and how to work under pressure, face deadlines. Got exposed to many new softwares.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Working environment is very good. But they expect you to finish the assignment within the deadline.

Academic courses relevant to the project : -

PS-II Station : SRF Ltd. , Gurgaon

Faculty

Name: Nithin Tom Mathew

Brief write-up on PS-II station : SRF Gurgaon focus on innovations in chemical technology. The students were able to perform well.

Student

Name: PAPU BHOWMIK BHOWMIK (2015A1PS0646G)

Student Write-up

Short Summary of work done during PS-II : Pump and line sizing , Scrubber design , Fume Venting , instrumentation and equipment design, reactor design, utility selection and optimization.

Tool used (Development tools - H/w, S/w) : Aspen

Objectives of the project : To design a scrubber according to HCL fume venting.

Major Learning Outcomes : Operation criteria and working of scrubber, reactor utility optimization technique, selection of instruments and their application on pipe lines and equipment, pump selection criteria and line sizing .

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Friendly and caretaking management , helpful mentors, cooperating co-workers. Comfortable office work.

Academic courses relevant to the project : Mass transfer operation , chemical process calculation , heat transfer , process Dynamics and control, fluid Dynamics.

Name: VARSHALI SINGH SINGH (2016A1PS0796P)

Student Write-up

Short Summary of work done during PS-II : The work at the PS station was related to the process design which involved calculations related to Mass and Energy balance. It also involved making of Block flow diagrams, Process Equipment List and Process flow diagrams. All this designing is done in order to estimate the total cost of a product required.

Tool used (Development tools - H/w, S/w) : MS-EXCEL, Aspen Plus

Objectives of the project : Process Development and Scale up studies of new products

Major Learning Outcomes : Scale up, Process design Experience and Some reactor design

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Working environment is good. The whole staff and team were quite supportive and helpful.

Academic courses relevant to the project : Chemical Process Calculations and Process Design Principles

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PS-II Station : ST Microelectronics(I) Pvt.Ltd. , Greater Noida

Faculty

Name: Rajesh Kumar Tiwary

Student

Name: AMRITANSHU TRIPATHI . (2016AAPS0246H)

Student Write-up

Short Summary of work done during PS-II : The newer technology nodes has created enormous design challenges (like- parasitic becoming comparable to circuit resistance and capacitance, increased Electromigration and IR challenges, ballooning of DRC checks etc) thus EDA tools and methodologies used earlier have now become obsolete. Semiconductor industry needs tools which use machine learning and big data to predict yields, faults, reliability, aging curves, etc for electronic circuits even before they are even fabricated so as to decrease time-to-market speed. I had a privilege of working on beta versions of two such tools, running various test cases on them (for doing process/statistical variation) and providing feedback so as to further improve these tools. One of tool after the evaluation presented by me was purchased the company while the others purchase was delayed as it did not bring the value for money and performance enhancement as expected by the company.

Tool used (Development tools - H/w, S/w) : Virtuoso, Custom Compiler, Eldo, Spectre, Hspice, Wicked, Calibre, etc.

Objectives of the project : Objective of my training was to improvise the methodologies used for yield analysis through pre and post layout simulations (which included verification and statistical/process variation), in order to meet the time-to-market with reasonable accuracy. Also

Major Learning Outcomes : I learnt about the state of art technologies like FD/PD-SOI (their design, advantages, limitations & future scope) used in the semiconductor industry at present. Then I also had a familiarization with the various EDA (Electronic Design Automation) tools.

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Details of Papers/patents :

Brief Description of working environment, expectations from the company : Work environment is quite good. People are always ready to help, one gets a great exposure by knowing about the recent trends in the industry and new technologies that are under development. There is little difference in the work given and result expected from interns and employees, which I suppose makes this a great place to grow professionally.

Academic courses relevant to the project : Electronic Devices, Microelectronic Circuits, Digital Design, Analog Electronics.

PS-II Station : Sun Mobility , Bangalore

Faculty

Name: Preethi N G

Student

Name: PASUMARTHI VENKAT HEMANTH . (2016A4PS0384H)

Student Write-up

Short Summary of work done during PS-II : I was taken as an intern to reduce the production takt-time of the wheeler pack battery production. I have to study every assembly and sub-assembly stage on every micro detail and also the operational sequences of the production to optimize the time for production purposes. Give different methods or tools, tackles to reduce the human stress. That requires designing of tool, get the supplier's contact and get it

manufactured. That also involves different discussions with suppliers about technical details of the product and processes. Get the quotations and also the bargains to do businesses.

Tool used (Development tools - H/w, S/w) : Creo Parametric, MS word and excel

Objectives of the project : To reduce the production time of one of the products.

Major Learning Outcomes : Learnt about industrial sector on how any kind of engineer works and also how business runs between two companies. The different kinds of production processes from mechanical, electrical and software perspective.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment is perfectly balanced by the number of freshers and also the experienced people. All the managers are easily approachable.It is really good place to learn anything like supply chain management, Production of different products, in view of electrical, software, mechanical and also in business terms. Can go and meet any employee and ask to learn about something.

Academic courses relevant to the project : Machine Design and drawing, Production Techniques, Thermodynamics, Electrical circuits, Finance management, Material sciences

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PS-II Station : Symphony Fintech Solutions Pvt. Ltd. , Pune

Faculty

Name: Sonika Chandrakant Rathi

Student

Name: Krishna Gutta (2015B1A20810H)

Student Write-up

Short Summary of work done during PS-II : Worked on Financial Charting Application for Windows Operating System, Using C#.NET and Graphics9GDI+), Its used by Clients and Traders alike for analyzing trades of Indian Stock Market in Real Time.

Tool used (Development tools - H/w, S/w) : Visual Studio(C#.NET)

Objectives of the project : Financial Charting Win32 Application

Major Learning Outcomes : OOP concepts, Graphics(GDI+) on Windows Platform

Details of Papers/patents :

Brief Description of working environment, expectations from the company : People, mainly CTO and project leads here are passionate, ever learning mentors, They help with work if stuck, discuss ideas with you, and your ideas can go into development.

Academic courses relevant to the project : OOP, Math Courses. DBMS, DSA is an advantage but not required

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Name: MUKUL RANA (2015B5A10583P)

Student Write-up

Short Summary of work done during PS-II : Worked on designing of financial trading analytics and complex graphical rendering framework. Also worked on migration of order execution management system code base to .NET Core to make it cross platform.

Tool used (Development tools - H/w, S/w) : C#, .NET, GDI+

Objectives of the project : To create a platform that graphically shows the market trends using various chart types. Also, I worked on designing of many features(tools & indicators) that would help the user to analyze the market trends.

Major Learning Outcomes : OOP, .NET, Network programming

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Working environment is really good. You are given tasks for weekly sprints and a project manager is assigned to you who tracks the progress on daily basis.
The company treats you just like their employees and also expects as much output from you.

Academic courses relevant to the project : OOP, OS

PS-II Station : Synopsys India Pvt. Ltd. , Hyderabad

Faculty

Name: Belde Vinay .Balde

Student

Name: DEEPAK SINGHANIA (2016A8PS0148P)

Student Write-up

Short Summary of work done during PS-II : Work basically involve devolving the library for tool custom compiler. It's an EDA tool which need different libraries. We basically create those libraries, test them and provide it to the user.

Tool used (Development tools - H/w, S/w) : Synopsys Custom Compiler(CC)

Objectives of the project : Development of the iPDK

Major Learning Outcomes : Learning of Python and Tcl. Also u will learn how to use CC

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : Team members were very friendly. Since most of them are of our age bonding with them is easy. During my time i had average amount of work load but that can change. Work timing is from 10-5.

Academic courses relevant to the project : Comp. Prog.

PS-II Station : TapChief , Bangalore

Faculty

Name: Mohammad Saleem J Bagewadi

Student

Student Write-up

Short Summary of work done during PS-II : I developed 2 dashboard solutions, 2 Android Apps and at least 3 more small scale Google Sheet solutions to productise and increase efficiency of TapChief CSR. I also got to work on automating various report generation and standardising reports solution.

Tool used (Development tools - H/w, S/w) : Google App Script, Node.js, Javascript, HTML, CSS, SQL, PostgreSQL

Objectives of the project : Productising Macro and Micro Pods

Major Learning Outcomes : - How to work in an professional work environment
- Reporting work done per day to the manager
- Better time estimation of work to be done

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : The work environment is extremely proficient. The team constantly empathizes with you and make sure you are not facing any difficulties. They also try to keep you rejuvenated by organizing multiple POD and team outings (at least once a month). Overall I did not find any difficulty in getting along with peers.

Academic courses relevant to the project : OOP, DSA (Not important that you have done both the courses, a basic understanding will also do)

PS-II Station : Tata Chemical Innovation Center , Pune

Name: Santosh Khandgave

Student

Name: RISHIKA JAIN (2016A1PS0494G)

Student Write-up

Short Summary of work done during PS-II : My Project was Synthesis of Silica Anisotropic Nanoparticles. Started with study of research papers related to silica synthesis continued with carrying out the synthesis reaction. Various parameters like Temperature, pH, Reaction time which can affect the reaction were adjusted. Also template and precursor to be used and also their amount was decided and various reactions were carried out.

Analysis was done for all the Silica Samples. Various Characterizing techniques including FTIR(Fourier Transform infrared microscopy), FESEM(Field Emmision Scanning Electron Microscopy), TEM (Transmission Electron Microscopy), XRD(X-ray Diffraction), DOA(Dioctyl Adepate), BET Surface area, Particle size analyzer, Nanozetasizer were used and all samples were analyzed.

Tool used (Development tools - H/w, S/w) : Techniques: FTIR, FE-SEM, TEM, TGA, Nanozetasizer, Malvern Mastersizer, XRD, DOA.

Tools: Peristaltic pump, pH meter, Hot plate, Agitator, Beakers, Measuring cylinders, crucibles.

Objectives of the project : Objective of the project is to synthesize silica anisotropic nanoparticles by using different templates, precursors, etc. and to characterize these silica samples by using different techniques.

Major Learning Outcomes : Following things are learnt:

1. To carry out synthesis reaction on a bigger scale using stirrer and peristaltic pumps.

2. Use various characterization techniques: FTIR, FESEM, TEM, TGA, XRD, DOA, BET Surface area, Particle size analyzer, Nanozetasizer.

3.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment at Tata Chemicals is very good. Everyone is very helping and very friendly to talk to. There are so many techniques to learn here and we are very free to work on our own ideas. Office location is very beautiful and working environment is stress-free. Apart from work, there is also celebration of festivals, ethics week, etc.

Academic courses relevant to the project : Material Science, Engineering Chemistry, KRD.

Name: JIVJYOT SINGH (2016A1PS0512P)

Student Write-up

Short Summary of work done during PS-II : Sugar is the most common sweetener in our households. It is a major component of our diet. But its high caloric value and glycaemic index makes it inadvisable for consumption for Diabetics, Sportsperson or health conscious people.

FOS on the other hand has no such shortcomings and can be safely consumed by all of the groups mentioned above. FOS is a larger molecule when compared to sugar and has a higher number of sites available for H-Bonding. This higher instance of H-bonding may inhibit the retrogradation of starch in the bakery matrix by slowing down the transfer of moisture inside the matrix.

FTIR and XRD were used to study the structural changes of Starch in bakery. The experiments were conducted on regular intervals of 3 days for 30 days.

The change in FTIR and XRD indicate that the sugar cookies show a change in structure over 30 days. More experiments are needed to confirm the hypothesis.

Tool used (Development tools - H/w, S/w) : XRD,FTIR,DSC, multiple analytical machines, Highscore Plus, Origin Pro, OPUS, STARe Software, Excel etc

Objectives of the project : To Study the Interaction of FOS (fructo-oligosaccharides) with Bakery Product matrix.

Major Learning Outcomes : 1.Structure and changes in the bakery matrix over time. (knowledge)

2.Operating various analytical equipment.

3.Research methodology.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Good place to work. People are ready to help and teach you stuff. No shortage of raw material or lack of equipment to conduct experiments.

Projects undertaken are innovative and completely new. No recycling of old stuff.

Academic courses relevant to the project : Engineering Chemistry, Basic Chemistry, Biology, Materials science.

PS-II Station : Tata Consultancy Services , Bangalore

Faculty

Name: H Viswanathan

Student

Name: AMAN KUMAR RANA (2015B5A20681P)

Student Write-up

Short Summary of work done during PS-II : My work was to build a smart connected care solution. This smart connected health solution aims at tracking the current status of the person in terms of heart-rate, calories burnt, current location, etc. This project involves a Fitbit watch which constantly keeps track of the person's personal details as mentioned above.

After that, the data is fetched from the fit-bit watch to device cloud and then on to our machine using O-auth 2.0. For extracting data we need to communicate to Fitbit using their Fitbit API's(application programme interface) which are pre-defined. On successful communication, we get access to the data which we need to store in a database. Therefore we create a database and store the data. Also to get data updated after the fixed interval we set ajax call in such a manner that data gets auto-updated on an hourly basis. Once this is done we display the data in a tabular form to the end-user after averaging each day,s data in a weekly report format. In this way, we aim to connect your health from episodic care to continuous care.

Tool used (Development tools - H/w, S/w) : Python, Django, HTML, CSS, JavaScript, jQuery, Ajax

Objectives of the project : To make a web portal to display the weekly report from the data recievedthrough smart device through data analytics and visualisation. ☐ To fetch the data from the device to the portal developed for further analysis using oauth.

Major Learning Outcomes : Python, Django, HTML, CSS, JavaScript, jQuery, Ajax

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : The environment was quite good. Team members were very helpful. In a nutshell, you will have a lot of time to explore and learn new things.

Academic courses relevant to the project : None

PS-II Station : Tata Motors Ltd. , Sanand

Faculty

Name: Ravi S Reosekar

Student

Name: DESHMUKH SARVESH SANDEEP (2015B5A40559P)

Student Write-up

Short Summary of work done during PS-II : Productionalization of two models Tiago and Tigor i.e .Mid cycle enhancement.The product goes through different stages or shops like press shop,weld shop,paint shop,TCF shop.Production of product is divided into batches like alpha ,beta 2.0,beta 3.0. During production batches the problem faced were corrected one by one.

Tool used (Development tools - H/w, S/w) : Excel,SAP.

Objectives of the project : Productionalization of two model Tata Tiago and Tigor

Major Learning Outcomes : Learned about product journey ,till it's completion and problems faced and actions taken.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Working environment was like other corporate job sector.

Academic courses relevant to the project : Kinematics of machines,fluid mechanics, Production techniques 1 and 2 etc

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PS-II Station : Techture Structures (IT) , Nagpur

Faculty

Name: H Viswanathan

Student

Name: PATEL KAPISH KISHANBHAI (2016A7PS0063G)

Student Write-up

Short Summary of work done during PS-II : development of application that runs on Revit software and is a part of cloud based application named plan BIM. In the development of this project I have worked on everything except for database management.

Tool used (Development tools - H/w, S/w) : Visual Studio, Postman, Autodesk Reivt

Objectives of the project : To create a plugin(addin) that runs on revit software and is extenion of a cloud application named planBIM

Major Learning Outcomes : .NET Framework, MVVM Model, XAML, WPF, Threading, Hashing etc.

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : The working environment is decent, employees are also helping in nature. As holidays and leaves are strictly managed, you should expect more workload and less free time. The project that is in progress is web based, mobile based and software interactive. So you have to work on any of these fields or database management that requires postgreSQL.

Academic courses relevant to the project : Object Oriented Programming, C Programming, Operating System, Database Management System, Data Structure and Algorithm, etc.

PS-II Station : Tega Industries SEZ Ltd , Dahej

Faculty

Name: Arun Maity

Brief write-up on PS-II station : Students should have done courses on Quality Management, Industrial Engineering. Texmaco : Students should have interest in Material Science, Mechanics of Solids.

Student

Name: MACHEPALLI RAMASESHU . (2016A4PS0207H)

Student Write-up

Short Summary of work done during PS-II : Our work is to observe and try to solve the problems faced by various departments involved in production. The work I have done is improvement of design (shrinkage analysis of rubber when reinforced with steel or casting), and also design of rack for better utilisation of storage space and movement.

Tool used (Development tools - H/w, S/w) : AutoCAD, Fusion 360.

Objectives of the project : To make life easier for the people involved in production and achieve maximum efficiency.

Major Learning Outcomes : How work is done in industry, the planning and co-ordination required for smooth going of production process. Various machinery used in rubber industry.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment is good enough and the company expects us to deliver the goods in less time and also do more work

Academic courses relevant to the project : Mechanics of Solids, Production Techniques.

PS-II Station : Tega Industries, Kolkata

Mentor

Name: Gyan Prakash (Manager)

Mentor comments: The students have applied DMAIC principle in the reduction of non-value added activities, reduction in wastage and made blank maunufacturing process less manual dependent. The student has done a commendable job in repairing a jammed roller at the end of feeding conveyor which was causing frequent jams in the process. The student has designed proper jigs and fixtures to ease the loading and unloading process. Did time study of 14 different lifter bars and made a process study with the aim of reducing the cycle time. The students are very hardworking and collected data from the plant for analysis and decision-making.

Faculty

Name: Arun Maity

PS-II Station : TESCO Hindustan Service Centre , Bangalore

Faculty

Name: Sandeep Kayastha

Student

Name: MONARK MOOLCHANDANI (2015B5AB0682H)

Student Write-up

Short Summary of work done during PS-II : I was in Store & Channel insights team at Tesco, which is one of the best teams in analytics division here. Our work involves solving business problems faced by Tesco in UK & rest of the globe with the help of data & strategy. My major projects involved producing a high impact periodic report for the store managers in UK to build the gap between them & the business. I automated the process of sending the health card across using VBA. My other project involved analysing the shopping trend of Tesco colleagues & recommending strategies for them to increase the stickiness.

Tool used (Development tools - H/w, S/w) : Excel, VBA, Tableau, SQL, Hive, R

Objectives of the project : Building automated dashboard & reports for checking performance of each store (2666)

Major Learning Outcomes : 1. Stakeholder management 2. SQL, VBA 3. Business problem solving

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : The work culture is very nice over here. A lot more of ownership than you can expect from a big company like Tesco. The campus is one of the best campuses in Bangalore, which keeps you constantly motivated. PPO chances are good if you are passionate about your work & take up lead here, projects are mostly related to analytics & not much about data science.

Academic courses relevant to the project : I did a small project in supply chain which kind of helped me kickstart with retail domain.

Name: **ASWIN ANIL KUMAR (2016ABPS0913P)**

Student Write-up

Short Summary of work done during PS-II : Tesco is a retail giant based primarily out of Europe. In the course of its business, massive amounts of data are generated from customer activity. Upon analyzing this data, a number of useful metrics tracking the company's performance across sectors and functions can be created. Over the course of my project, I built and automated reports measuring critical KPIs week-on-week.

Tool used (Development tools - H/w, S/w) : SQL, Excel, Alteryx

Objectives of the project : Building and automating One Pager reports

Major Learning Outcomes : - Knowledge of SQL, Advanced Excel tools
- Better understanding of retail operations

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : Working environment was generally relaxed. Interns are assigned mentors to guide their progress and help complete their projects. Nature of work varies significantly between teams.

Academic courses relevant to the project : -

PS-II Station : Texmaco Rail & Engineering Ltd., Kolkata

Mentor

Name: Rajarshri Sarkar (DGM R&D)

Mentor comments: The student is given a research project. The different phases of the project include determining the chemistry of the given sample using spectrometer, learning about the various heat treatment processes mainly Normalizing, Quenching & Tempering, working principle of V-Notch Charpy Impact Test, studying the microstructure of the given sample.The data collected refers to the effect of heat treatment on the properties of a material mainly hardness, tensile strength, elongation, etc. Different samples of varying chemical composition were subjected to different heat treatment process(es) and mechanical testing of the samples was done after that. The data was analysed to compare the expected values to actual values. The student need to go through various reseach papers and do the literature survey.

Faculty

Name: Arun Maity

PS-II Station : Think and learn , Bangalore

Mentor

Name: Pritish Kumar Choudhury (Sr. Associate)

Mentor comments: Three projects

A. Data analysis and Game designing

B. Web portal for two internal projects. One has gone live and the other will be launched soon.

C. Applying machine learning model for task prediction and text tagging.

1. Interactions with the students :   Students are well up to date with their project details, timelines etc and are focused towards objectives in their work in discussions.

2. Highlights of major achievements: Major contribution in creating new games

3. Outstanding student characteristics: Ability to learn new things fast, flexibility, good Technical Skills, disciplined.

4. Specific characteristics that you are looking for in the interns: Open to learning

Faculty

Name: Seetha Parameswaran

Brief write-up on PS-II station :

Very friendly working environment.

Tools used - Python or Excel

Objectives - To increase average user active time on the app and to remove flaws from the app.

Soft skills - presentation and creative writing skills.

Student

Name: KASLIWAL RAHUL ANILKUMAR (2016A1PS0610G)

Student Write-up

Short Summary of work done during PS-II : Development of two web portals viz Employee utility portal and Recruitment portal. Initially, both the portals were basically a combination of google sheets.

I used PHP for the backend of first project. It was developed on Lampp stack.

The recruitment website was developed using Node.js framework Express.js. I also used OAuth and Calendar API in this website.

The database of both the project were designed and developed using MySQL.

Tool used (Development tools - H/w, S/w) : PHPMyAdmin, Zing Charts, Codeigniter 3.2, Express.js

Objectives of the project : To develop employee utility portal and recruitment website.

Major Learning Outcomes : JavaScript, JQuery, AJAX, PHP, PHP CodeIgniter, Node.js, Express.js

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : The working environment is friendly and supportive. It was a pleasant experience.

Academic courses relevant to the project : Object Oriented Programming

PS-II Station : Thorogood , Bangalore

Faculty

Student

Name: JOSHI AASHUTOSH KIRAN (2016A3PS0162G)

Student Write-up

Short Summary of work done during PS-II : My profile during the internship was that of a Business Intelligence and Analytics Consultant. For the first two months of PS, we were enrolled in a training program by the company which involved being trained on various business intelligence tools in company domain. There was a case study given to us as an assignment to test our understanding out of the whole training program. I was then enrolled in an internal project of the company. I had to catch up with different web development tools as it involved designing an application for the company which will be used by all the consultants worldwide

Tool used (Development tools - H/w, S/w) : SSMS, SSIS, Microsoft ADF, Azure DataBricks, Angular, DjangoRF

Objectives of the project : 1. To design an application for all the consultants worldwide which would enable them to enter the work they did on a particular day as well as the expenses they incurred for a particular task. This application will keep track of all these things and will

Major Learning Outcomes : Data Analytics tools, Web development tools, Communication Skills

Details of Papers/patents :

Brief Description of working environment, expectations from the company : One of best working environments one could ever ask for. People are really supportive and motivate you to try new things. You don't get treated differently because you are an intern. Your opinions will definitely be considered if they are indeed helpful.

Academic courses relevant to the project : Data Mining, Data Analytics, Object oriented Programming, Data Science

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PS-II Station : UBER , Hyderabad

Faculty

Name: Chennupati R Prasanna

Student

Name: UNDRU SRI GUNA KAUSHIK . (2015B2AB0708H)

Student Write-up

Short Summary of work done during PS-II : My work consisted of automating the company's polices i.e, code JSON files and create API's and integrate it with the available backend end-point created by the engineering team. Also maintaining various of dashboards of several line of businesses of Uber.

Tool used (Development tools - H/w, S/w) : JavaScript, SQL, Python, Visual Studio Code

Objectives of the project : Reduces the agent handling time of the help issues created by the customers, decreasing manual intervention of agents, increasing the cost savings of the company by reducing investment on agent.

Major Learning Outcomes : Understood the business context of how several Lines of businesses work.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The people, managers in the company are very cooperative, always encourage you to learn new things in way that your output could be optimised. They're always willing to help freshers/interns in any case of technical difficulties. It's a five day working pattern with 9 hours work each day. You'll be provided 2 trips daily between office and your home.

Academic courses relevant to the project : probability and statistics,SQL

Name: MOHIT JAIN (2015B4A30564P)

Student Write-up

Short Summary of work done during PS-II : My major project was to detect the fraudulent new users on the UberEats App.
The project involved learning a few new languages, such as SQL and Cypher Query Language(used for graphical databases) and then building a model to predict whether the new signup is potentially a fraudulent user or not.
Apart from these, there would be small projects required to build Dashboards, which was used by the stakeholders to get an overview of complex business metrics.

Tool used (Development tools - H/w, S/w) : SQL, Python and Microsoft Excel

Objectives of the project : Detect fraud users using UberEats App as soon as they signup.

Major Learning Outcomes : The major learning outcome I can take from this internship experience is time, stakeholder management and understanding the objectives of a company from a business point of view.
In the technical side, I became proficient in working with SQL and Python.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The employees and managers in the company are very helpful and help you feel comfortable in the environment. You will be treated as a full time employee and would be responsible for your work and will be expected to meet deadlines . It's a five day working pattern with 9 hours work each day, however as long as you complete your tasks the manager wont mind if you leave a little early.

Academic courses relevant to the project : The skills required for this role is different than what the academic courses teach. However you will be given ample time to learn the skills required and then work on projects.

Name: SHAH ALAY MAYAN (2016A4PS0307G)

Student Write-up

Short Summary of work done during PS-II : My work consisted of assisting Growth Team in making Dashboards and post analysis of the data obtained for various experiments conducted by them. Along with that, I have worked with the Green-light Team in successfully implementing their projects.

Tool used (Development tools - H/w, S/w) : SQL, Python, Google Sheets, Data Studio

Objectives of the project : Optimising processes in Growth and Supporting GL and India BD team

Major Learning Outcomes : Understood the business context of how several lines of business works.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The employees, managers in the company always encourage you to learn new things in way that your output could be optimised. They're always willing to help everyone in any case of technical difficulties. It's a five day working pattern with 9 hours work each day. You'll be provided 2 trips daily between office and your home.

Academic courses relevant to the project : Probability and Statistics, SQL

PS-II Station : UBS Business Solutions (India) Private Limited - Finance Group , Pune

Faculty

Name: Bandi Venkata Prasad

Student

Name: Abhaya Sharma (2016D2TS0982P)

Student Write-up

Short Summary of work done during PS-II : I was working with the Finance group as a Financial Analyst in Corporate Lending, I was not assigned with any kind of project, I was doing the Actual work which is to be done by employees and I used to perform daily Profit and Loss Statements and Analyze the MTM with respect to the Market movements. I was also constantly in talk with the Front office established in US. I used to do the Validation and analysis of P&L. Also, Daily Balance Sheet Analysis and Commentary was also done by me, in B/S i used to do the analysis of Market movement with respect to our Daily P&L.

Tool used (Development tools - H/w, S/w) : MS Excel, SAP and oracle.

Objectives of the project : Calculate Daily MTM with respect to Market movements and validating the numbers with Ledger.

Major Learning Outcomes : How to Calculate MTM with Int&fese. How Price movement actually vary with respect to the Market Movement and How it affects a firm on the Loans side Particularly.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The working environment of the Firm is very nice, all of the Employees are very helpful and ready to tell any kind of doubt. Basically, no need to have previous knowledge of anything in finance, if you don't know even P&L they will tell but you need to perform it with full integrity and collaboration.

Academic courses relevant to the project : Financial Accounting
Drivatives and Risk Management

PS-II Station : UBS Business Solutions (India) Private Limited - Group Operations , Pune

Faculty

Name: Bandi Venkata Prasad

Student

Student Write-up

Short Summary of work done during PS-II : I was part of a new team called data management office. It was their first team in India. I had to undergo full fledged trainings and was given responsibility of few processes. I was under the Data lineage maintenance team. Other than this, I was given the responsibility to automate our team's maintenance processes. We were two interns in the team and out of the 9 processes, we automated 5 of them and made their job very easy.

Tool used (Development tools - H/w, S/w) : Tableau, microstrategy, Advanced excel, VBA, Collibra

Objectives of the project : Data lineage maintenance and process improvement using automation

Major Learning Outcomes : I've learnt a lot of things like how to communicate with senior high ranked employees, change management, setting up a new team, process improvement using Excel VBA, structuring the workflow, being a team player.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Our company considered us as high skilled interns, they trained us just like any other employee, and treated us highly. My team mates were the best. They helped me a lot and taught me new things. It was pleasure to join this new team and learn a lot from it. My manager always gave me higher responsibilities and considered me as a senior resource.

Academic courses relevant to the project : Nil.

Name: SHAKTI SINGH . (2015B5A20658H)

Student Write-up

Short Summary of work done during PS-II : Work Done

2.1-Daily Process

Reconciliation of data (Entity- 3040, B999, B667, C205, C840, D604).

In this we check that is any drop records from Input system (Gear- Ledger) to Merival Report. It done daily so that we can rectify it before the month -end and change the incorrect attributes (reason for drop records) so that the data should flow to particular account with correct attributes.

Main Reason for Drop Records-

1- Inactive/ Incorrect Group Trading Partner

2- Incorrect Cost Centre

3- Incorrect Function ID

4- Inactive Account

5-Industry & Customer Type Code.

Daily FX Deal

When the transaction currency is different from local currency, then there is a FX open position created which can bring FX gain/loss on the transaction. To avoid this, we offset the open position by making the reversal entry, so that at the end of the month there is no open position in FX trading.

2.2-Monthly Process

3-way reconciliation – this has to done on U+0 data and before the sign-off the entity.

Reconciliation of data- Gear Vs Merival Vs MCR.

Calculation of bond & swap value in the local Currency of Subsidiary Curacao.

Calculation of guarantee fees & Collateral for UBS Hypotheken AG. UBS Hypotheken AG has taken the guarantee for bond issued by the UBS IB London.

GGAT Adjustment- Through this we can make adjustment in the merival report to avoid the drop records and hard validation.

Attribute check - Through this project we have to check the attributes for which GGATs aren't posted and post the comments for the same.

Tool used (Development tools - H/w, S/w) : Excel

Objectives of the project : To do accounting of the Monthly process for different ledger, Swaps and Bonds

Major Learning Outcomes : Through this internship, I have acquired advance knowledge of accounting. This internship has enhanced my skills in accounting, MS-Excel to do analysis on financial data.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : UBS Pune has provided me with a great understanding of the working of corporate world.

Academic courses relevant to the project : Fundamental of Finance and Accounting, Derivatives and Risk Management.

PS-II Station : UBS Business Solutions (India) Private Limited - RAS FINANCE , Mumbai

Faculty

Name: Bandi Venkata Prasad

Student

Name: KARTIK MAHESHWARI (2015B3A20475P)

Student Write-up

Short Summary of work done during PS-II : I was alloted the Group Finance Division and the Hard Revenue Transfer Team. The major work was calcuting the Hard & Soft Revenue/Cost transfers according to the Service Line Agreements b/w inter Group UBS entities. The work was mostly process oriented.

Tool used (Development tools - H/w, S/w) : In house softwares were used majorly FS-Per, one needs to have a good grip on MS-Excel

Objectives of the project : To Calculate the Hard Cost Transfers b/w specific UBS entities for the intership period. i.e. The calculations were done on monthly basis.

Major Learning Outcomes : 1) Advance working proficiency in MS-Excel

2) Knowledge of how the Transfer Pricing is applied in corporates.

3) Knowledge of how payment transfers are done within the entities & the complexity of transfers so as to make it difficult for external entities

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : The working environment was good, the team members were really helpful and considerate. The Manager was very good. This is a support center.

Academic courses relevant to the project : Fundamentals of Accounting & Finance

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PS-II Station : UBS Business Solutions (India) Private Limited - RAS FINANCE , Pune

Faculty

Name: Bandi Venkata Prasad

Student

Name: JAI SHARMA (2016A2PS0791P)

Student Write-up

Short Summary of work done during PS-II : Work mainly consisted of preparing daily and weekly revenue reports for different offices in London along with some adhoc analysis work. The processes are of two types which "Run the Bank" and "Change the Bank", interns are not made a part of the CTB process or the more fancy/better work.

Tool used (Development tools - H/w, S/w) : MS Excel, MicroStrategy (beginner level)

Objectives of the project :

Major Learning Outcomes :

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Work environment is good, people are helpful and cooperative.

Academic courses relevant to the project : Fundamental of Finance & Accounting.

PS-II Station : Udaan , Bangalore

Faculty

Name: Annapoorna Gopal

Student

Name: NAVNEET RINGANIA (2015B1A10731G)

Student Write-up

Short Summary of work done during PS-II : Increased productivity of the field sales executive (FOS) by adoption of FOS app on a team of 189 members.

Tool used (Development tools - H/w, S/w) : Excel, SQL

Objectives of the project : To increase productivity of field sales executive

Major Learning Outcomes : Communication skills, data interpretation

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The culture in Udaan is really flexible and at the same time professional. However, it is very much dependent on the category and the team you're assigned.

Academic courses relevant to the project : Maths II

Name: AKSHIT KUMAR (2015B2A10793P)

Student Write-up

Short Summary of work done during PS-II : The work involved managing PnL of a 20 Cr per month category in Udaan. Apart from this, we had to design monthly plans to give GMV targets to the sales team.

Tool used (Development tools - H/w, S/w) : SQL, Python, Advanced Excel

Objectives of the project : PnL, Pricing strategy, Dashboarding

Major Learning Outcomes : SQL, Python, Advanced Excel

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Udaan has a great work culture, my team never treated me as an intern, My suggestions were given a lot weightage.

Academic courses relevant to the project : Principles of Economics

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Name: ABHISHEK KUMAR (2016A1PS0542G)

Student Write-up

Short Summary of work done during PS-II : Buyer behaviour Analysis and modelling.Run targeted campaigns on selected Dormant Buyers to get them back on the platform.

Tool used (Development tools - H/w, S/w) : Python, SQL,Excel, Sprinkle

Objectives of the project : To increase the Repeat rate and sales.

Major Learning Outcomes : Python, SQL , Excel, Business Analysis.

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : The working environment is relaxed but professional behavior is expected. You get to travel(Bussiness Trips) a lot.

Academic courses relevant to the project : NA.

Name: TUSHAR DWIVEDI . (2016A2PS0573H)

Student Write-up

Short Summary of work done during PS-II : -Increasing touch base of FOS(salesman) for collection
-Reducing cash default behavior in collection
-Reducing TAT for cash payment update in buyers account
-Reducing TAT for customer issue resolution

Tool used (Development tools - H/w, S/w) : Excel and My SQL

Objectives of the project : To increase the collection on credit buying

Major Learning Outcomes : market understanding,data analysis and interpretation,end user perspective on business

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Working environment is good if one is dedicated to his/her work,since its a startup there is no proper intern program, one has to ask for work to show others his/her potential

Academic courses relevant to the project : Technical report writing

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Name: SUNNY S AGRAWAL (2016A4PS0297G)

Student Write-up

Short Summary of work done during PS-II : Data Analytics, Business Development

Tool used (Development tools - H/w, S/w) : MS Excel, SQL

Objectives of the project : Market Developmet

Major Learning Outcomes : Corporate Culture, Functional Hierarchies, Market Dynamics, Data Analytics

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Helpful mentors and managers who are very easy to approach. The work being done affects the day to day working of the company. Useful feedback received and improvements done.

Academic courses relevant to the project : Supply Chain Management

Name: DHRUV SHARMA (2016A8PS0371G)

Student Write-up

Short Summary of work done during PS-II : 1. Market research : Surveyed 15pincodes of Delhi on foot to size the market of fresh fruits and vegetables. Descriptive statistical analysis and inputs were given to demand generation team regarding each area
2. Business analysis : worked on multiple projects required to scale operations of category in New Delhi

Tool used (Development tools - H/w, S/w) : Python

Objectives of the project : 1. Complete market sizing of fruits and vegetables in Delhi

Major Learning Outcomes : 1. Persistentance and resilience are key factors in determining your work output at a high pace startup like Udaan

Details of Papers/patents : Nine

Brief Description of working environment, expectations from the company : 1. Work alloted may seem trivial, but will be integral to company's business

2. Mentors will be very busy with their own work but will still manage to give you atleast an hour a week

3. The startup environment is high paced as aforementioned- this requires one to be available at all times with flexible working hours

Academic courses relevant to the project : Principles of economics, management, statistics related courses

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PS-II Station : Udaan , Delhi

Faculty

Name: Annapoorna Gopal

Student

Name: ARNAV SETHI (2015B1A10569P)

Student Write-up

Short Summary of work done during PS-II : I was allotted the Fresh team in Udaan. My role was in both the supply and the demand team. I was supposed to coordinate between the two for

efficient completion of my main project. I was responsible for giving them key market insights to drive sales in the entire Delhi region allotted to me. I was also allotted side projects in the supply team in both teams.

The main project was to do the market sizing for the F&V industry in Delhi. It was to gauge the potential reach of Udaan Fresh and suggest initiatives to get into the serving the extremely widespread F&V industry in Delhi NCR. It was important to understand how much potential each pincode had along with understanding what kind of SKU would be ideal for each pincode. We used Statistical tools to get an unbiased view of the same. Apart from this, we did various side projects and got an overview into the entire process behind the supply side and demand side of this vertical and were able to learn various technical and soft skills to help us in our professional career post college.

Tool used (Development tools - H/w, S/w) : SQL, Python, Excel

Objectives of the project : An estimation of Purchasing Power of F&V category among various divisions of Delhi buyers was to be done, considering the following factors: - 1. Pincode wise variations 2. SKU wise distinctions 3. Shop type categorization

Major Learning Outcomes : Market Sizing, Statistical Data Analytics, Fundamentals of this very different field of F&V, Mandi dynamics, Regression Tools, SQL and Python, Biz Dev measures, Supply Chain Management

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : The working environment of the company was just as one expects a start-up firm to have. As interns, however, the involvement in the day to day activities wasn't there and we weren't involved a lot in the team due to us having a separate project, which did not really affect the day to day functioning of the vertical. We had weekly meetings. The HR for the few of us in Delhi office was based in Bangalore only so it has operational challenges. But, since next semester onwards, Udaan Delhi is a separate PS station, this won't be a problem anymore. Not everybody had a separate project to be done. Those who were given projects in their team's day to day functioning enjoyed their stint. However, they did feel that the work was a bit monotonous.

Overall, it was a good insight into the working of a B2B E-commerce company and helped one understand the nuances of this sector. The stipend, along with perks such as Ola Corporate would be considered a decent remuneration.

Academic courses relevant to the project : Supply Chain Management, Business Communication

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PS-II Station : Udhyam Learning Foundation, Bangalore

Faculty

Name: Febin Aisha Vahab

Brief write-up on PS-II station : Udhyam: An NGO which is trying to build their technical team.Looking for students who are good in UI development,data analysis,visualization etc.

PS-II Station : UPGRAD , Mumbai

Faculty

Name: Swarna Chaudhary

Student

Name: BHAVESH SHASHIKANT NAVANDAR (2014B4A10648P)

Student Write-up

Short Summary of work done during PS-II : Created content for learners with aim to teach them, but not limited to, python, PCA, Exploratory data analysis, data visualization in python, Linear Regression, Logistic Regression etc

Tool used (Development tools - H/w, S/w) : Jupyter notebook

Objectives of the project : To create content for learners

Major Learning Outcomes : Got to learn basics of Data science and machine learning, concepts like Linear regression, logistic regression, PCA, EDA etc

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : Most of the team members were seniors from BITS. Team communication and environment was very good.

Academic courses relevant to the project : Computer Programming, Mathematics 2, Mathematics 1, DSA, Intro to Data science, Machine Learning

Name: AYUSH (2016A1PS0466P)

Student Write-up

Short Summary of work done during PS-II : The project was related to the content development for the Blockchain technology. I was part of the team that was working on the development of the content for the Hyperledger Fabric, a blockchain technology for the enterprise.

Tool used (Development tools - H/w, S/w) : Hyperledger Fabric Binaries, Docker, Fabric SDK for Node.js

Objectives of the project : Content creation for the Blockchain Program.

Major Learning Outcomes : Got to learn about the Blockchain technology for the enterprise, Hyperledger Fabric. Learnt how to create Node applications to interact with the chaincode. Learnt to send HTTP requests using Postman application.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Everyone is very supportive and ready to help you at any point of time you require it. The work culture is very good. You need to come before 11 in the morning and can leave at any time depending on the work for that particular day. Sometimes it can be as early as 4:30 or 5 in the evening and sometimes it can be even 9 or 10 in the night.
One thing that stood out was that the people here are very helpful and are always there for you if you are stuck at some point.

Academic courses relevant to the project : None which I had done.

Name: ASHITA JAIN (2016A1PS0563G)

Student Write-up

Short Summary of work done during PS-II : Content Strategist for College programs - SD (Software Development) program. To compile the learning analytics for the modules and modify or suggest changes in the already the existing modules if required.

Tool used (Development tools - H/w, S/w) : upGrad Platform, InterviewBit, etc.

Objectives of the project : Content development and monitoring

Major Learning Outcomes : Learn about Full Stack development and its various frontend and backend technologies

Details of Papers/patents : -

Brief Description of working environment, expectations from the company : Colleagues are wonderful, major force towards self learning, work can be redundant sometimes but overall a great experience.

Academic courses relevant to the project : OOPs, DSA, PoM etc.

PS-II Station : UST Global - Cochin , Cochin

Faculty

Name: Sindhu S

Student

Name: MISTRY KRUSHABH DIGWESH (2016A4PS0312P)

Student Write-up

Short Summary of work done during PS-II : Front-end Development and Debugging in JavaScript. Used ReactJS and Readux. Also worked in HTML,CSS libraries for styling.

Tool used (Development tools - H/w, S/w) : Visual Studio Code

Objectives of the project : Front-end Development and Debugging in JavaScript for a Business Financial Service Website

Major Learning Outcomes : Front-end Development work first-hand experience

Details of Papers/patents :

Brief Description of working environment, expectations from the company : working environment :- really good and flexible.Not hectic.

Academic courses relevant to the project : OOP, DSA

PS-II Station : UST Global- Chennai , Chennai

Faculty

Name: Sindhu S

Student

Name: HALEMBER MOUNIKA . (2016A8PS0369H)

Student Write-up

Short Summary of work done during PS-II : 1.We have created a model which is trained and tested using machine learning and its functions. User Interface also is created to ease the understanding of the working processes of the machine learning in this project and the use case.

2. We have used the node-red tool which is used to connect the internet of things on one platform and which makes things easier. We used this tool in creating a solution for maintaining of clean room conditions through monitoring the connections made and the results obtained in the node-red tool and applying the conditions we need of the results have a problem.

Tool used (Development tools - H/w, S/w) : Html,css, node red,jupyter notebook

Objectives of the project : To create a user interface to make it easier for the user to get the results without having to understand the back end. And to maintain clean room conditions for an assembly line through monitoring.

Major Learning Outcomes : Have learnt how create user interface using HTML and also understood how a tool named node-red makes it easier to connect internet of things and how a company on a whole works when there is an order from the client.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : It was really good. We had the freedom to get to know properly about the project and then helping the company in what we can. They even pushed our limits in understanding the processes.

Academic courses relevant to the project : Machine learning, Neural networking and fuzzy logic

Name: MAHESH THIAGARAJAN THIAGARAJAN (2016A8PS0676G)

Student Write-up

Short Summary of work done during PS-II : Machine Learning in Python, Web development, Serverless Cloud Computing in AWS Lambda.

Tool used (Development tools - H/w, S/w) : Jupyter Notebook in Python, Eclipse IDE in Java, JavaScript, CSS, HTML, AWS.

Objectives of the project : Project1: To predict the best seller for a product using machine learning. Project 2: To create the backend for a mobile app using JSON.

Major Learning Outcomes : Learnt a lot about Machine learning and Serverless Computing.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : It was a very good work experience which introduced the IT industry to me.

Academic courses relevant to the project : Machine Learning. Object Oriented Programming.

PS-II Station : UST Global Infinity Labs-Robotics , Thiruvananthapuram

Faculty

Name: Sindhu S

Student

Name: DHAKANE SIDDHARTH RANJEET (2015B4A80502G)

Student Write-up

Short Summary of work done during PS-II : In the first project I had to build a web app with microservices framework using python. The second project was realtime big data analytics over a supermarket chain's Point of Sale data.

Tool used (Development tools - H/w, S/w) : Python, Javascript, MySQL, Cassandra

Objectives of the project : Geting an understanding of microservices their scaling.

Major Learning Outcomes : Microservices, APIs, RDBMS, NoSQL

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Work environment at infinity labs is decent, mentors will help you out if you have any issues. They provide restricted internet which might block some of the sites. They are strict about timings (arrival and departure).

Academic courses relevant to the project : ML

Name: C V KRISHNA MURTHY (2016A3PS0257P)

Student Write-up

Short Summary of work done during PS-II : I completed a total of 4 projects.
The first 2 projects dealt with Web Development using React.js. I designed, integrated, tested and documented a Speechmatics based Dashboard as well as a Questionnaire generator based Website.
In the third project, I developed a Desktop Application and packaged it for Linux, macOS, and Windows
The fourth project dealt with developing a Flask based App and deploying it using Knative to a single node Kubernetes Cluster within a cloud platform

Tool used (Development tools - H/w, S/w) : Frameworks Used:

JEST, Enzyme, PyTest, Sphinx, Electron and some company specific tools for their Cloud Platform

Objectives of the project : To gain a sound knowledge as well as hands on experience of Web Development, Desktop App Development, Serverless Computing and Cloud Computing

Major Learning Outcomes : 1) Serverless App Development

2) App Deployment using Kubernetes and Knative

3) Web Development using React.js

4) Desktop App Development using Electron

5) AWS ECR, AWS Lambda, Docker

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The work environment is professional as well as peaceful. Mentors are very helpful and the projects are very useful for future endeavors.

Academic courses relevant to the project : C, OS, OOP

PS-II Station : UST Global- Trivandrum , Trivandrum

Faculty

Name: Sindhu S

Student

Name: GAURAV RAI (2016A1PS0801P)

Student Write-up

Short Summary of work done during PS-II : Developing an analytical tool which identifies the critical jobs (ETL scripts) of Masters Sequencer(Its is basically a acyclic Directed graph with nodes as it's jobs) based on the past Runtime of its Jobs .This tool helps in identifying its jobs which can be tuned to reduce the Runtime of Master Sequences.

Tool used (Development tools - H/w, S/w) : Phython Pandas Matplotlib tkinter

Objectives of the project : Find the Critical Path of Master Sequencers

Major Learning Outcomes : Data Analytics ,Graph Data Structure , Critical Path Algorithms ,App Development using tkinter.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : If you are working on Client side (like me)then most of the people are non technical or they don't know much about coding.You will get enough time for coding if you planning to study DSA in PS as work pressure is not that much . Stipend is bit low but sufficient for Trivandrum as it is cheaper than other places.

Academic courses relevant to the project : OOP ,DSA and basic statistics

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Name: RAVI SADHWANI (2016A8PS0302G)

Student Write-up

Short Summary of work done during PS-II : We were allotted mentor and project in a UK based client account- Equifax. We worked on an "AI Powered Test Case Selection".

The idea and algorithm design was a innovative achievement, and we made a web application ahead.

The application was presented in an international annual hackathon and secured a position in Top 3 teams (Out of 445 teams across all USTs)

Its a great PS for people willing to learn from scratch and grow in software development.

Tool used (Development tools - H/w, S/w) : Springboot, MongoDB, AngularJS, Docker, Jenkins, Junit, Jacoco, Cucumber, Istanbul

Objectives of the project : Reduce the testing time for any Project application.

Major Learning Outcomes : Agile methodologies of a development team.

Front end Development. Back end Development. Developing AI from scratch without using libraries. Client library. Deployment and Dockerisation.

Details of Papers/patents : Application for a Patent through UST Attorney's Filed.

Brief Description of working environment, expectations from the company : The working environment was really good. There weren't any issues in our account for timings and all. The mentor and other senior were really experienced in the field and helped a lot in our learning and work.

Academic courses relevant to the project : Artificial Intelligence, Machine learning, Neural networks, Object Oriented Programming, Operating System, Database management system

PS-II Station : Viacom18 Media Pvt. Ltd - Corporate Strategy , Mumbai

Faculty

Name: **Swarna Chaudhary**

Student

Name: **AYUSH ANAND (2015B2A40679G)**

Student Write-up

Short Summary of work done during PS-II : Business Analytics and Business intelligence projects

Tool used (Development tools - H/w, S/w) : Ms Excel, BARC BMW

Objectives of the project : Multiple short term projects in data analytics and business intelligence

Major Learning Outcomes : Structured thinking, problem solving approach, organisational and corporate culture, professional code of conduct.

Details of Papers/patents : N/A

Brief Description of working environment, expectations from the company : Wonderful environment with a team that works on high stakes and is also consists of very qualified individuals. Great learning experience.

Academic courses relevant to the project : N/A

PS-II Station : VMware Software India Pvt. Ltd. , Bangalore

Faculty

Name: Chandra Shekar R K

Student

Name: ANAMYA AGARWAL (2015B4A70625P)

Student Write-up

Short Summary of work done during PS-II : Written code for the implementation of RAID 6 Erasure Coding.

I was able to break the pages into 4 pages and then send them to the servers using RDMA.

Then Parity data was calculated and was sent using RDMA.

A server failure was simulated, and data was reconstructed successfully.

VM was working without crashing, after the addition of the new code.

Tool used (Development tools - H/w, S/w) : Perforce, C Language, bash

Objectives of the project : Distributed Remote Memory project aims to target SAP-HANA kind of workload by aggregating the memory from the different hosts in the cluster, thereby forming the memory pool in the cluster. Introducing data reliability into Distributed Remote Memory.

Major Learning Outcomes : • Making changes to a kernel code of Virtual Machine
• Learning about RDMA and Erasure Coding
• Writing pure C code

Details of Papers/patents : N/A

Brief Description of working environment, expectations from the company : Work Environment is supportive, helpful and positive.

Academic courses relevant to the project : Operating Systems, Computer Networks, Discrete Mathematical Structures

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PS-II Station : Worley Parsons India , Mumbai

Faculty

Name: Pavan Kumar Potdar

Student

Name: RAHUL SINGH CHAUHAN (2016A8PS0399G)

Student Write-up

Short Summary of work done during PS-II : The company needed a way to query data from hundreds of spreadsheets and databases via voice commands that will help save hundreds of manhours. I developed an Alexa Skill that makes a request to an Elasticsearch endpoint to query JSON data. I hosted my code on AWS Lambda which I connected to Alexa Skill. The Lambda was put as an endpoint for the Alexa Skill and the Alexa skill was a trigger for Lambda. Developing this taught me a great deal about how to work together as a team in developing a large application and about SDLC (Software Development Life Cycle) in Agile incarnation. During development, I have gained a deeper knowledge about NNLP (Natural language processing) and about AWS.

Andrew Ng, an adjunct professor at Stanford University described AI as the 'next electricity', because just like the discovery of electricity, the advent of AI-powered applications will significantly increase the quality of life of everybody around the world.

Similarly, using Alexa AI to connect to multiple databases would save a tremendous amount of manpower and help the organisation be more efficient.

Working on this project helped me gain a hands-on approach to coding in two different languages (Python and Java), several platforms, and a lot of other computer science related tools and softwares. It also developed my interpersonal skills as I learnt to work as a part of a large team.

Tool used (Development tools - H/w, S/w) : AWS Lambda, AWS Elasticsearch, Kibana, SSMS, Python, Java, Atom, Notepad++

Objectives of the project : A way to query data from hundreds of spreadsheets and databases via voice commands that will help save hundreds of manhours

Major Learning Outcomes : Working on this project helped me gain a hands on approach to coding in two different languages (Python and Java), a number of platforms, and a lot of other computer science related tools and softwares. It also developed my interpersonal skills.

Details of Papers/patents :

Brief Description of working environment, expectations from the company :

Academic courses relevant to the project : CP, TRW

PS-II Station : Xilinx India Technology Services Pvt. Ltd. , Hyderabad

Faculty

Name: Belde Vinay .Balde

Student

Name: SARTHAK AGRAWAL . (2015B3A30468H)

Student Write-up

Short Summary of work done during PS-II : Testlink is open source test management software used by our team. My major work was related to that. It involved documentation of testcases in testlink. Also enabling LDAP support for testlink. My major project was to write a python script to automatically get test results from the Result Viewer webpage and update these Test results in corresponding Testplan of Testlink. This was done using python webscrapping using requests and beautifulsoup libraries and testlink API. Apart from this I also had to improve some scripts written in shell.

Tool used (Development tools - H/w, S/w) : Python , Testlink , Shell

Objectives of the project : Automatic updation of results in Testlink

Major Learning Outcomes : I learnt shell scripting and python programming. Using different libraries of python like requests , beautifulsoup , pandas etc.

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : The work environment of the company is very good, All the team members are very friendly and helpful. The manager guided me through the project at each step giving help whenever required. The mentor was also very good and gave advice on not just project topics but for future knowledge and career too. Overall the company is very good to work at.

Academic courses relevant to the project : Programming in C , FPGA

Name: BHAT SAI VASANTH SINGH . (2016AAPS0217H)

Student Write-up

Short Summary of work done during PS-II : I was a part of team that does various operations that validate, emulate and simulate the RTL code before it makes it way to silicon. I was asked to make hardware designs so that software team could write applications to test various interfaces, test various peripherals and interfaces of an unreleased product and debug subtle issues on hardware by probing with an oscilloscope. Finally, I was given a serious and a huge project which aims to test the on-chip CAN controller. I successfully proposed the microarchitecture of the tester IP and got it approved.

Tool used (Development tools - H/w, S/w) : Vivado, bash, python, sed, awk

Objectives of the project : To test the on-chip CAN controller according to the ISO test spec.

Major Learning Outcomes : CAN protocol, FPGA design flow, SystemVerilog, Static Timing Analysis, Clock Domain Crossing

Details of Papers/patents : Nil

Brief Description of working environment, expectations from the company : Working environment is GREAT. No complaints whatsoever. Employees here are highly motivated at the same time, flexible. Managers are highly supportive and they understand you. I was a part of a hardware team and was the only BE guy. Also, PPO chances for B.E may not be there. However, chances of you getting hired are substantially higher when xilinx come for campus placements.

Academic courses relevant to the project : Introduction to FPGA, Digital Design, Comparch

PS-II Station : Yale University , Norway

Faculty

Name: Raja Vadhana P

Student

Name: JOY MUKHERJEE (2015B5A70394P)

Student Write-up

Short Summary of work done during PS-II : The objective was to build computer vision based mobile apps for Android and iOS to detect and score events in sports, specially footballs drills such as counting the number of football juggles etc. The goal of the apps developed were such that they can be used out of the box with no setup, calibration or internet and produced accuracies of >98%.

Tool used (Development tools - H/w, S/w) : For iOS -
Hardware: iPhone X, Macbook pro mid 2015
Software: XCode, Javascript
For Android -
Hardware: OnePlus 6, Huawei P20 Lite
Software: Android Studio, MLKit

Objectives of the project : To detect and score sports drills using computer vision in mobile

Major Learning Outcomes : Machine learning, object detection, tracking algorithms, multimedia dataset, iOS development, Android development, APIs, Google Firebase

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Due to issues with visa we have not been able to visit the office. We worked from Bangalore during most of the project, and later in the Molde Analytics office in Hyderabad.

We had flexible hours in Bangalore. We got to choose the components we would like to work on and set our own deadlines. All hardwares (Macbooks and iPhones) were bought for us. Workload was easy to moderate, and work was extremely interesting and educational.

Molde Analytics had expected work-duration of 8 hours a day, with flexible in and out timings. The office is small but has all the required hardware.

Academic courses relevant to the project : Data structures and Algorithms, Object oriented programming, Neural Networks and Fuzzy logic, Machine Learning

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PS-II Station : Zinnov Management Consulting Pvt. Ltd (IT Project) , Bangalore

Faculty

Name: Pradheep Kumar K

Student

Name: SIDDHANT KUNDU (2016A7PS0055P)

Student Write-up

Short Summary of work done during PS-II : At Zinnov, I worked on developing the Draup platform, which is a subscription-based business intelligence platform designed to provide advice to people in the sales and HR departments of client firms. I worked as a Big Data

Engineer and a Data Scientist, which was possible due to the flexibility offered by the firm in choosing my own projects. I was initially assigned to the ETL team (also called the Big Data team) where I worked on refining and consolidating data from various sources using Apache Spark. I later ended up working with the Data Science team on a project which combined the tasks of the two teams. I ended up learning a lot about how data processing is done in production environments on large databases, and how firms deal with the problems present in self-reported data. I also learned a lot about the various ways to remove junk from data obtained and how to obtain useful representations for use in machine learning models. I also had a project where I analyzed the ways in which Elasticsearch could be used as a data analytics tool.

Tool used (Development tools - H/w, S/w) : Remote distributed clusters, Apache Spark, HDFS, MongoDB, MySQL, Elasticsearch, Keras

Objectives of the project : To deduplicate and validate certification data

Major Learning Outcomes : CNNs for text processing, string preprocessing methods, similarity checks.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The company provides a very open and friendly working environment. You are encouraged to take up projects that you find to be interesting, and to take responsibility for their outcomes. There is very little in the way of instructional training, except for the initial period where you learn about the tech stack you will be using (mostly Spark). However, you can approach anyone at any time for help, and they will almost always try their utmost to assist you (even if they have important work on their hands at the time). The company is also very generous when it comes to working hours, giving you the opportunity to work from home if you are unable to come to the office due to genuine unavoidable reasons.

Academic courses relevant to the project : Data Mining, Information Retrieval, Machine Learning, Neural Networks and Fuzzy Logic

PS-II Station : Zinnov Management Consulting Pvt. Ltd., , Bangalore

Faculty

Name: Anjani Srikanth Koka

Student

Name: P DEEKSHITH . (2015B2A20683H)

Student Write-up

Short Summary of work done during PS-II : Deep dive analysis of the companies to provide strategic approach to the clients

Tool used (Development tools - H/w, S/w) : Excel, Powerpoint

Objectives of the project : Strategic Consulting

Major Learning Outcomes : Consulting and research

Details of Papers/patents :

Brief Description of working environment, expectations from the company : Zinnov is an excellent place to work in. Nice set of people with many valuable suggestions given

Academic courses relevant to the project : None

Name: SAMRIDDH AGRAWAL (2016B3PS0536P)

Student Write-up

Short Summary of work done during PS-II : As part of the Gap team at Zinnov, my work revolved around the three major reports published annually by them which were on Engineering Research and Development (ER&D); Internet of Things (IoT), and Media and Technology (M&T). These reports provide ratings and rankings of various Service Providers in different verticals and horizontals, based on various parameters like capabilities; expertise; achievements etc. It was a great experience working in Zinnov, being a part of such a helpful team and gaining exposure to the world of consulting.

Tool used (Development tools - H/w, S/w) : MS Office (Excel, Word and PowerPoint), Linkedin Recruiter Login and Naukri logins

Objectives of the project : ENABLING THE GIC TO UNDERSTAND THE GOOD PRACTICES BEING FOLLOWED BY PEERS IN THE INDUSTRY TO MOVE AHEAD IN THE VALUE CHAIN & WALMART TECH TALENT BENCHMARKING.

Major Learning Outcomes : Industry exposure and knowledge, Market research, Data Collection and analysis, Decision making.

Details of Papers/patents : None

Brief Description of working environment, expectations from the company : The company is comprised of experienced individuals who are very helpful, and are easily approachable as there is no hierarchy. Flexible hours and a very supportive team.

Academic courses relevant to the project : Principal of Economics, Fundamental of Finance and Accounting , Business Analysis and Valuation.

Name: Tarun Tanwar (2016D2TS0972P)

Student Write-up

Short Summary of work done during PS-II : Our team was involved in rating the Service Providers in different industries such as Automotive, Aerospace, BFSI, Software & Internet etc. globally. We used to asses all the SPs on different parameters, which helped us placing them in different zones like Leadership Zone, Nurture zone, etc. MY major work was related to finding the insights and data points through Primary and Secondary research. Secondary research like LinkedIn, Naukri.com, etc.

Tool used (Development tools - H/w, S/w) : MS-Excel, MS-PowerPoint, MS-Word,

Objectives of the project : To rate various SPs globally in different verticals

Major Learning Outcomes : My research skills were improved, learnt how to analyze the set of data in a meaningful way to find the trends of the market.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : My experience was very good. Everyone follow a very enthusiastic approach which creates a very good environment to work in. At no point I felt that my questions would disturb anyone because everyone was so kind to give a good explanation to each of my question. The working environment is very good but I had one issue, the working hours are not fixed.

Academic courses relevant to the project : POM, POE, Market Research

PS-II Station : Zinnov Management Consulting Pvt. Ltd., , Gurgaon

Faculty

Name: Anjani Srikanth Koka

Student

Name: Kushagra Sharma (2014B3A10740P)

Student Write-up

Short Summary of work done during PS-II : I was involved in numerous projects during my stay, all of which were directly used by the company as work for their paid projects. The company has a lot of work, so interns are directly involved in the project teams to gain maximum work. I worked on both, whitepapers and reports, as well as proper projects for companies doing compete and peer analysis of their market segment.

Tool used (Development tools - H/w, S/w) : Linkedin Sales Navigator, DRAUP, Microsoft Office

Objectives of the project : The objectives of the projects were confidential, but in general they were about the knowledge of the AI market, and how the big and small players are working in the segement across the verticals

Major Learning Outcomes : About the market of Digital technologies like AI, IoT, etc. Learnt presentation and report making, doing primary interactions.

Details of Papers/patents :

Brief Description of working environment, expectations from the company : The people environment is friendly. The gurgaon office focuses on digital technologies and its a new division for the company, so the environment is very much like a startup, where there is always too much work, and the more you volunteer to do, the more would be expected out of you. There is no distinction between employees and interns in the amount of work being done. They will happily offer ppo to someone who is interested and does decent work, and it might be a

good place to work for exposure to responsibilities which might not be possible for many years in a bigger company.

Academic courses relevant to the project : Market Research, Finance knowledge

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Name: ANUBHAV PANDEY (2016A1PS0604P)

Student Write-up

Short Summary of work done during PS-II : I worked with the Private Equity team on multiple projects for PE firms/their clients. The clients are majorly US-based PE firms and their software portfolio companies (mostly enterprise software companies).

The work ranged from:-

1. Generating insights from data to confirm various hypotheses regarding value creation for PE portfolio companies

2. Identifying potential acquisition targets for client PE firms and conducting deep dives on the shortlisted targets (deal sourcing)

3. Developing frameworks to conduct due diligence and deal evaluations.

4. BD work including creating proposing and reaching out to Partners of PE firms and acquire new clients.

5. Creating industry/market maps for enteprise software companies operating in various verticals.

I took up two additional projects on my own:-

1. I developed some web scraping scripts to capture data from commonly used websites and speed up the database generation processes.

2. I attempted to develop a ML model that can predict valuations of enterprise software companies better than EBITDA/Revenue mutliples.

Tool used (Development tools - H/w, S/w) : MS Excel, MS PowerPoint, MS Power BI, Python

Objectives of the project : The major objective of my projects was to provide pre-deal and post-deal phase services to private equity firms. These included deal sourcing and commercial due diligence in the pre-deal phase and developing value creation strategies.

Major Learning Outcomes : - Deal sourcing

- Secondary research
- Data analytics using Excel and Power BI
- Data visualization using Power BI
- Commercial due diligence
- Building decks

Details of Papers/patents : NA

Brief Description of working environment, expectations from the company : The work environment can depend on the manager that you're allotted but it usually tends to be hectic on most days of the week (including weekends). The official timings were 10.30 to 6.30 and Monday to Friday, but the work usually gets extended to after office hours (when you're at home/weekends).

To generate a good learning experience for oneself, one must go beyond the regular work and take initiatives to do meaningful work. I was working in the newly formed Private Equity team so I got plently of opportunities to do so.

Academic courses relevant to the project : No courses are directly relevant but a knowledge of Principles of Management/Financial Management/Marketing Research can help.

PS-II Station : Zomato Media Private Limited , Gurgaon

Faculty

Name: Ashish Narang

Brief write-up on PS-II station : Zomato is an Indian restaurant aggregator and food delivery start up founded in 2008. It provides information, menus and user-reviews of restaurants, and also has food delivery options from partner restaurants in selected cities. Organization offers projects in Business intelligence domain where students are expected to work on preparing data for analytics and develop machine learning based algorithms to carry out analysis. Interns at zomato have been exposed to technologies like mysql, python etc. Organization prefers students who are good researchers and have excellent programming skills.