# **MEENU VINCENT**

WORK EXPERIENCE

Mastercard, Dublin

Post: Software Engineer II

January, 2021 - Present

- As Release Engineer, worked on release activities like Packaging, Monitoring and Maintaining Software Builds,
  Deployment and Troubleshooting of issues. Managed critical customer escalations by providing timely support
  and resolved production issues and internally raised defects. Followed Kanban methodology.
- As a full stack engineer, developed features and completed technical spikes for a web-based payment control tool that facilitates B2B payments for mid and large size corporations. Used Java, Spring, Maven and OracleDB. Followed Scaled Agile Framework (SAFe).
- Acted as a buddy for new joiners in the team.
- Worked on upgrading Log4j libraries to resolve the recently discovered Log4Shell vulnerability.

Citi Europe PLC, Dublin

Post: Technology Analyst

September, 2018 - December, 2020

- Worked on Issuer Technology team to rebuild the legacy system which maintains the entire lifecycle of a Security (Financial Asset). Tech stack used was Java, Spring boot, Angular, OracleDB and IBM MQ. Followed Scrum.
- Developed a Web application for Citi's payment hub, for tracking and analyzing payments going through it, thus streamlining the work of testing and support teams using Service Oriented Architecture (SOA). Development stack used was Java, Spring boot, Angular, Apache Kafka, IBM MQ, MongoDB.
- Mentored a new intern and mentored a team in Citi's Upstart program, which made it to the finals in Belfast. Upstart is a student entrepreneurship program, to solve problems of social importance.

SAP Labs, India

Post: Developer Associate

July, 2015 - August, 2017

- Technical expert of Business configuration in Finance module of Business ByDesign (ByD) cloud ERP software.
- Developed and maintained Business configuration submodule of ByD Finance module, through 8 releases.
- Led the development of ByD tax and tax returns modules according to yearly German e-Bilanz taxonomy releases.

Unisys, India

Post: Consultant 4

September, 2014 – July, 2015

- Developed the backend of Landelijk Intake Portal, for Netherland's Mijnaansluiting.nl foundation.
- Used ASP.NET, C# and MS SOL server with a HTML, CSS, JS stack on SharePoint platform for the portal.

### **EDUCATION**

# MSc Computer Science - Data Science, Trinity College Dublin

September 2017 - August 2018

- Graduated with First class with Distinction (70%).
- *Modules:* Data Analytics, Data Visualization, Machine Learning, Optimization Algorithms for Data Analytics, Text Analytics, Scalable Computing, Security and Privacy and Applied Statistical Modelling.

Bachelor of Technology – Computer Science and Engineering, Government Model Engineering College, Cochin (CUSAT), India July 2010 - April 2014

- Graduated with First class with Distinction (82.75%).
- *Modules:* Object Oriented Programming, Software Engineering, Operating Systems, Artificial Intelligence, Distributed Computing, Database Management Systems, Computer Graphics, Logic Design, Microprocessors.

# RESEARCH EXPERIENCE

MSc Dissertation on using Bayesian nonparametric mixture models for clustering of 'Dublin Bikes' bike stations

• Analyzed JCDecaux's data and clustered the bike stations using Bayesian non-parametric mixture models.

- Dirichlet Process Mixture Model of Gaussians (DPM-G) was used after Fourier Basis smoothing to detect groups of similar stations, that helps the service provider to implement group-targeted strategies.
- Exploratory Data Analysis and model building was done in R, after data preparation in Python. An AWS EC2 instance was used for automated data collection using Python at scheduled intervals.

#### **PROJECTS**

#### Personal Website - meenutresa.github.io

August 2019

Developed a website on Bootstrap framework to showcase my skills and experience. Hosted the site on Github pages.

### Spring Boot App to notify of best Forex rates (Hobby Project)

**July 2019** 

Developed an application with Microservices architecture that polls the forex conversion rates for a given currency pair and sends email alerts to the user, if the rate is above a Threshold value.

### Adaptive Mood based Music Player - Go with The Times

**April 2018** 

A music player which adapts its playlist automatically according to the user's mood. Implemented using Django python framework with PostgreSQL DB. The player comprises of two engines – Mood Inference Engine and Song Matching Engine to play the music according to the mood of the user.

# **Analysis of Cyclomatic Complexity**

December 2017

Implemented a system to estimate the cyclomatic complexity of a Github repository with a master-slave work-stealing architecture using RESTful webservices in Python.

# Analysis of the EU fishing fleet data

December 2017

Analysis of EU fishing fleet data provided by EU Scientific, Technical and Economic Committee for Fisheries (STECF). The aim was to build a regression model and ensemble models (RandomForests, XGBoost) to estimate net profit/loss for each fishing vessel. The models were evaluated and compared using RMSE and R<sup>2</sup> metrics.

#### Performance comparison of Machine Learning Frameworks

October 2017

Analyzed the performance of three ML Frameworks - Scikit Learn, TensorFlow and Apache Spark MLlib, on each of the three algorithms - Linear Regression, Multilayer Perceptrons and RandomForests. Metrics like RMSE, Accuracy and R<sup>2</sup> were used to evaluate the performance of these frameworks, on the same data.

# **SKILLS**

- Technical Skills: Software Development, Java, Spring Boot, Spring Cloud, Angular, Apache Kafka, IBM MQ, MongoDB, Python, R, C, C++, C#, ASP.NET, ABAP, RESTful Web Services, Microservices, TensorFlow, CSS, HTML, MySQL, JavaScript.
- Areas of Interest: Data Structures, Web Development, Machine Learning, Data Analytics, Optimization Algorithms.

#### **ACHIEVEMENTS**

- Won First place in Citi TTS hackathon 2018, for creating a Python ML application that classifies handwritten and typewritten text using a Convolutional Neural Network and Contour based Image Segmentation.
- Won First place in Google TensorFlow challenge held by SAP Leonardo/ IoT Innovation Hub at SAP Labs India.
- Won second place in a Case study on Talent retention within SAP Labs India.

# **INTERESTS AND ACTIVITIES**

- Worked as a Part-time exam invigilator at Trinity College.
- Developed a training curriculum on Cloud computing and its Elasticity, for SAP employees. The curriculum was developed with reference to AWS infrastructure and SAP HANA.
- Developed an android app aimed at helping people to not lose touch with their acquaintances and sends reminders on failing to keep in touch with them on a regular basis. Used Java, Android SDK and Eclipse with ADT plugin for this project.
- Participated in **Accenture Solves Trinity**, a competition for solving a global issue using innovation and technology, conducted by Accenture Ireland.