

Subash Prabanantham

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I am passionate about data and everything around it. I have experience working on Big Data technologies leveraging to apply data science models to derive insights for business as well as for optimizing the process.

EMPLOYMENT. (EXP: 6 YRS)

March 2020 – Present

SR. SOFTWARE ENGINEER – Visa Inc. India

Visa Ad Solutions

- + Built an in-house Advertisement Solutions platform to measure the effectiveness of the Ads executed through our partners
- + Involved in Architecture and review cycles for developing the platform
- + Collaborated with Product team to deliver the features as well as responsible for owning the complete backend services

TECHNOLOGIES/LANGUAGE: SCALA, PYTHON, SPARK BATCH, SPARK SQL

January 2018 – March 2020

SR. SOFTWARE ENGINEER – Visa Inc. Singapore

MARKETING DATA PLATFORM – MACHINE LEARNING

- + Built Campaign measurement tool for measuring effectiveness of campaign by comparing audiences with similar behavioral pattern during the campaign period – used *KDTree* for finding nearest neighbor of selective features producing good measure for effectiveness
- + Collaborated with Data Scientist in developing a *machine learning model* (XGBoost) to identify the *likelihood of cardholders retention*
- + Helped in *productionalizing the model* with distributed computation
- + Worked with Data Science team to come up with framework to consolidate survey data and design an unified technique to identify *Affluent Customer Card Preferences* across the globe

TECHNOLOGIES/LANGUAGE: SCALA, SPARK BATCH, SPARK SQL, XGBOOST, R

MARKETING DATA PLATFORM – SEGMENTATION

- + Worked in platform built for Visa Analytics team to fetch data for their marketing campaigns as well as to measure the campaign
- + The platform is built to calculate *user behavior scores* based on their transaction history data of *120 million per day* going back 1 year
- + Involved in gathering business stories and owning the delivery of the features
- + Worked in building new features and deployment strategies of Big Data application for Marketing Data Platform
- + Helped in *optimizing the existing Spark code* as well as re-writing them
- + Responsibilities includes mentoring and guiding the fellow team mates to ramp up building Spark applications

TECHNOLOGIES/LANGUAGE: SCALA, SPARK BATCH, HIVE, SPARK SQL

October 2016 – January 2018

SR. SOFTWARE ENGINEER – Visa Inc. India

RULE BASED OUTLIER DETECTION – STREAMING

- + Developed an application to fetch data from Kafka streams and apply business rules for detecting anomalous data.

TECHNOLOGIES/LANGUAGE: JAVA, SPARK STREAMING, KAFKA, HIVE, SPARK SQL

ANOMALY DETECTION – BATCH PROCESS – (Filed PATENT)

- + Developed a model to detect anomalies in transaction data with seasonal pattern captured on daily, monthly and yearly periods.
- + Responsible for leading the team in building the model and optimizing the process.

TECHNOLOGIES/LANGUAGE: JAVA, SPARK BATCH, HIVE, SPARK SQL

N-HASH BASED FULL FILE/TABLE COMPARISON (POC)

- + Used a variation of Bloom filter and compound hashing algorithm for efficient computation to compare huge datasets. Framed the solution for Map-Reduce paradigm to satisfy Big Data files/tables.

TECHNOLOGIES/LANGUAGE: JAVA, SPARK BATCH

August 2015 – October 2016

SOFTWARE ENGINEER – Visa Inc. India

DATA CONSISTENCY VALIDATOR

- + Developed an end-to-end framework for checking data consistency across Data Platform.
- + Responsible for overall architecture/data modelling and adoption of the product.

TECHNOLOGIES/LANGUAGE: JAVA, SPRING FRAMEWORK, NODE JS, ANUGULAR JS, HIVE

DQ PLATFORM MIGRATION

- + Responsible to put up a plan for installing/migrating the Data quality platform into China instance.
- + Travelled to Foster City (USA) for planning and collaborating with different verticals to understand the challenges/asks for new instance installation.

June 2014 – August 2015

SOFTWARE ENGINEER – PayPal, India

DATA LINEAGE TOOL

- + Worked in developing the Lineage tool for the whole of PayPal Data warehouse by parsing the BTEQ queries (Teradata).
- + Designed the data model for Lineage application in Graph Database.
- + Developed User Interface for Lineage tool to traverse through the graph.

TECHNOLOGIES/LANGUAGE: JAVA, SPRING FRAMEWORK, NEO4J, D3.JS, ANGULAR JS, NODE JS

MERCHANT SCORING

- + One-month project working with Data Labs team in PayPal Data Technology to come up with the score for the Japan merchants based on the transaction data.
- + Provided insights segmented by merchant category, cross-border transactions and level of merchants.
- + Helped Marketing Campaign team to target the merchants/consumers in the area of Japan.

TECHNOLOGIES/LANGUAGE: R, EXCEL

ANOMALY DETECTION – STREAMING DATA (POC)

- + Worked on POC in identifying anomalies in the streaming data present in Hadoop Data Warehouse.
- + Performed ARM in determining the rules for detecting outlier.

TECHNOLOGIES/LANGUAGE: R, SPARK STREAMING, SPARK MLlib

Jan 2014 – June 2014

INTERN – DATA SCIENCE – PayPal, India

FORECASTING & ETL TOOL

- + Developed a tool to forecast the merchant TPV (Total Payment Volume) and provide insights for merchant about the inventory management for enhancing profit.
- + Developed a tool to accept XML based workflow to perform ETL in Hadoop.

TECHNOLOGIES/LANGUAGE: JAVA, R, HADOOP, HIVE

EDUCATION

2010 – 2014

INFORMATION TECHNOLOGY – PSG College of Technology, Coimbatore, India

- + Secured **9.35 CGPA** (Out of 10).
- + **Secretary of Students' Union**, responsible for handling finance and event management.
- + **Executive Committee Member of Students' Union.**

AWARDS

2014 - 2019

- + **Winners of Data Innovation Summit Hackathon 2014:** Participated in the hackathon held in PayPal in 2014 to solve a problem related to Data Technology. The key take is we were recent college graduates competed with experienced people and won the hackathon.
- + **Winners of Sherlock – Monitoring Tool Hackathon (India) 2015:** The hackathon was to find or propose alternate approaches the monitoring tool (Sherlock) was supporting. We came up with an excellent idea and new methodology to find anomalies, which bagged us the first prize.
- + **SPOT Recognition Award:** Awarded spot recognition for exemplar performance in the Hackathon and coming up with new ways to help the team.
- + **Go-Beyond Award:**
 - o Awarded '*Go-Beyond*' for delivering critical project involving cross functional collaboration and travelled to US for helping the folks to ramp up with the delivery
 - o '*Go-Beyond*' for completing a deliverable in a very short period of 1 month which was very critical in cost cutting for the whole company with respect to migration of project
 - o '*Go-Beyond*' for delivering a campaign measurement pipeline used to measure all campaigns executed by Visa Business team. I was awarded since I was the only developer developing the complete pipeline which involves nearest neighbor algorithm with distributed computation for measurement.