Viraj Mavani Software Engineer

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SUMMARY

A backend software engineer with 1+ years of professional experience working with Java and Python and applying data science principles to real-world problems to cater to business needs. Anti-Fraud Vigilante for Walmart Inc.

EDUCATION

MS in Computer Science, The University of Texas at Dallas May, 2020
Jonsson School Merit Scholar, Prodigy Finance Graduate Scholar **GPA: 3.78 / 4.00**

B.Eng. in Electronics and Communications Engineering, L.D. College of Engineering June, 2018
IEEE Student Branch Chair, Editor-in-Chief Vox Populi Magazine **GPA: 8.89 / 10.00**

WORK EXPERIENCE

Software Engineer, Walmart Inc. June, 2020 - Present

- Saved the company over **$100M** in 2020 by development and maintenance of high-availability service **Sam's Fraud Engine** (**Python** Backend Microservices) and **Fraud Gateway** (**Java** Service) giving recommendations to accept, reject or review all Sam's Club orders preventing fraudulent activity in real-time.
- Successfully built and pushed to production machine learning models after engineering new features for fraud prevention across channels like E-commerce, Scan-and-Go and Curbside pickup and automating CICD pipelines.
- Skills utilized: **Python, Java, Scala, XGBoost4J, Scikit-learn, Spark, Hadoop, Cassandra, Docker, Kubernetes, Jenkins**

Software Engineer Intern, 7-Eleven Inc. May, 2019 - August, 2019

- Successfully delivered and forged a new **key performance indicator** (KPI) using a trend decomposition system built with Facebook Prophet to production with 5.36% mean error for gas station performance analysis across the USA.
- Deployed a **React.js** web dashboard for visualization of performance at store-level with the backend built using **Node.js**.

Research Assistant, The University of Texas at Dallas September, 2018 – May, 2019

- Designed and developed a deep learning classifier for loop-closure detection for **Visual SLAM** in an autonomous vehicle setting.
- Ideated and implemented a new system to make datasets hosted on web servers and a **Flask** API to access them while training thus enabling dataset modifications after release.

SKILLS

Languages and Frameworks :	Python, Java, Java Spring, JavaScript, Apache Spark, C++, Hadoop, Git
Web Technologies :	React.js, Flask, Django, Node.js, Express.js, AWS Lambda
Databases :	MySQL, Cassandra, GraphQL, MongoDB, AWS DynamoDB
Others :	Amazon AWS, Docker, Jenkins, Kubernetes, JUnit, PyTest, Java Jacoco

PROJECTS

- **Sam's Validation Engine (SAVE)** Walmart Inc. - December, 2020
  Data validation and feature health-checking library built upon PySpark for daily signals on slipping feature distributions enabling automatic model refresh for Sam's Fraud Engine.
- **Web Launcher – Quick Search Tool** Personal Project - November, 2020
  Home-page for browsers to quickly apply filters to Google Search for specific target websites with frontend in Bootstrap and backend written in Java using the Spring framework for a REST service with appropriate tests, CI/CD and code coverage applied.
- **Smart Blogger for GitHub Pages Websites** Personal Project - December, 2019
  A Java Web Service written using Jersey which updates repositories for GitHub pages websites on REST requests from a custom designed Client application made in React.js.
- **Language Modeling** Natural Language Processing - September, 2019
  Developed the code for obtaining n-grams from a given text in Python. Successfully generated random/likeliest words and random/likeliest texts after training the model.
- **Anno-Mage: A Semi-Automatic Image Annotation Tool** Personal Project - June, 2018
  A semi-automatic image annotation tool made as a desktop application in **Python** and **Tkinter** with overwhelming response on GitHub from a user base of **over 450 users**.