VINDHYA RAVI PRAKASH

SOFTWARE ENGINEER

CONTACT

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EDUCATION

M.S. in Computer Science

[GPA: 3.77]
Syracuse University (SU)
[Syracuse, NY]
Aug 2019 – May 2021

B.E in Information Science and Engineering

Visvesvaraya Technological University, B.N.M.I.T
[Bangalore, IN]
Aug 2013 – June 2017

TECHNICAL SKILLS

Programming Languages
Python, TypeScript, Java, C, Go

Web Technologies
React, React Native, Node.js, Express, ES6, WebPack, Babel, Django, HTML, CSS, PHP, Apache Tomcat

Database
MySQL, PostgreSQL, InfluxDB, MongoDB (noSQL), GraphQL

Tools & Platforms
Git, GitHub, Android, Linux, AWS, Docker, Jenkins, Grafana, Heroku

Software Development
Data Structures, Unit Testing, Object Oriented Design, Agile, Full Stack

Machine Learning
Regression, Classification, NLP, Clustering

EXPERIENCE

Software Engineer *@Hewlett Packard Enterprise, New York, NY* **Jun '21 – Apr '23**

- Responsible for the **maintenance and release of 5 HPE supercomputer systems** in the High Performance Computing department, with a current focus on improving development velocity, reducing build times and reducing deployment times through end to end automation processes using Jenkins.
- Performing code reviews, root cause analysis for critical issues, implementing, testing, and reviewing solutions to **support 50+ customers using the HPE supercomputer systems**.

Full Stack Engineer Intern *@Hewlett Packard Enterprise, New York, NY* **May '20 – Aug'20**

- **Developed a web app** for HPE's **Analytics Tool Repository** using React, Django, and PostgreSQL, **enabling developers to compare data visualization tools**, with potential extension to other managed services like databases and ML algorithms.

Volunteer Research Assistant, ML *@Syracuse University, Syracuse, NY* **Aug '20 – May '21**

- Assisted Dr. Soundarajan with a **new data imputation technique that uses active learning** to fill missing values in datasets, thus improving accuracy and reducing bias of the trained model.
- Implemented the algorithm using **Lasso Regression** to identify crucial features and **KNN imputer**, variance & accuracy to score the missing instances in those features. Obtained an **MSE of 5.46**.

Research Engineer *@Indian Institute of Science (IISc), Bangalore, IN* **Sept '17 – Jan '19**

- Developed an **IoT system for monitoring lab conditions at IISc** with real-time data visualization, and redesigned the Integrated Circuit Packaging Lab website, **increasing traffic by 20%.**

PROJECTS

DishInsight - Menu analysis, dish reviews, and dietary guidance app **Oct '24 – Dec '24**

- Created (and deployed) a cross-platform app where users can **take photos of a restaurant menu and get insights into specific dishes based on online reviews**.
- Used OpenAI's GPT-4 for **advanced menu analysis**, offering in-depth insights into ingredients, dietary classifications, and taste profiles through effective prompt engineering.
- Leveraged Retrieval-Augmented Generation (RAG) with PerplexityAI for **real-time, context-aware dish reviews** using cutting-edge LLM, fine-tuning prompts for accuracy & relevance.

Alphabite - Nutrition tracking and grocery replenishment app **Aug – Dec '20**

- Developed a full stack cross-platform app using **React Native** that enables users to **enhance personal care by tracking groceries, analyzing nutritional intake, and exploring healthy recipes**.
- **Nutrition**: Designed and implemented a database in **Firebase** that store users' daily nutritional information to help users analyze and set diet goals.
- **Inventory**: Leveraged the **Image Recognition feature from Google Cloud's Vision API** to detect and **classify food with 90% accuracy**, resulting in a significant UX improvement.
- **Recipes**: Integrated Spoonacular's API that utilizes an **Ingredients-to-Recipe Matching algorithm** to recommend healthy recipes based on the inventory captured.

TextTrim - Summarizer for meetings and articles **Mar – May '21**

- Collaborated to develop a full stack web application that **summarizes text or files** using 9 summarization techniques (both abstractive & extractive) and **evaluates the summary based on 4 different metrics**. Delivered an **average summary score of 0.7** across all techniques.
- Created an efficient and scalable multithreaded backend/pipeline using **Django** to handle requests, validate & store user input, and clean up user sessions.
- Designed a frontend UI using **React** that provides options to select a specific summarization algorithm and displays the summary with its evaluation. This was beneficial to document various online sessions held during conferences at Syracuse University.