VINDHYA RAVI PRAKASH

Full Stack Developer

EXPERIENCE

Hewlett Packard Enterprise   *Remote: New York, NY*
Systems/Software Engineer   *June 2021 - present*
- Responsible for handling the HPE Apollo platforms in the High Performance Computing department.

Software Engineer Intern - Agnostic Data-Driven Decision Making Tool   *May - Aug 2020*
- Built a web application for the Enterprise Analytics Platform at HPE that helps employees **evaluate and determine the appropriate data visualization tool** most suited for their project specifications.
- Engineered a framework using **React, Django and PostgreSQL** which transforms the aforementioned web application to become agnostic and be **refactored to other use cases** such as ML algorithms, databases, etc.

Syracuse University   *Syracuse, NY*
Volunteer Research Assistant   *Aug 2020 - May 2021*
- Assisted Dr. Soundarajan with a **new data imputation technique that uses active learning** to fill missing values in any dataset, which in turn increases accuracy and reduces bias of the trained model.
- Proposed a regression based algorithm that identifies features crucial to the accuracy of the model, **scores each missing instance** from that feature and determines which missing value instances should be filled by active learning instead of basic data imputation techniques.
- Implemented the algorithm using **Lasso Regression** to identify the features and **KNN imputer**, variance & accuracy to score the missing instances. Obtained an **MSE of 5.46** for the model that predicts the score of the missing instances and aids in picking the top instances for active learning.

Indian Institute of Science (IISc)   *Bangalore, India*
Research engineer - Smart LabCare System   *Sept 2017 - Jan 2019*
- Designed a system to conveniently **monitor temperature, pressure and humidity** in the Integrated Circuit Packaging and server labs at IISc, using IoT sensors, and **visualized real time data on a web app.** Helped ensure the maintenance of optimal lab conditions which preserves flammable materials and delicate equipment.
- Assembled a firmware for ESP8266 WiFi microchip using **Embedded C** to transmit temperature, pressure and humidity data from the sensors to an **InfluxDB** instance. Visualized the real time data using **Grafana, Apache Tomcat and PHP**.
- Re-designed the website for the Integrated Circuit Packaging Lab. Introduced Javascript animations and leveraged Bootstrap to make the web app mobile friendly. **Increased web traffic by 20%.**

PROJECTS

Alphabite - Nutrition tracking and grocery replenishment app   *Aug - Dec 2020*
- Developed a cross-platform nutrition tracking application using **React Native** and Image Recognition that **helps users maintain a healthy diet and track grocery replenishment** through 3 distinctive features.
  - Inventory: Leveraged the **Image Recognition feature from Google Cloud's Vision API** to detect and classify food alongside regular text based input. Utilized the USDA Food database to filter out non-food items, 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.
  - Nutrition: Designed and implemented a database in **Firebase** to store users' nutritional information and inputs, and utilize that to assign nutritional goals.
- Successfully delivered an image-recognition application that could **identify food items with 90% accuracy**, capture users' grocery purchases and nutritional intake, track progress and enhance personal care.

TextTrim - Content summarizer for meetings and articles   *March - May 2021*
- Developed a full-stack web application that helps users **summarize text or files like .docs, .pdfs, .txts and zoom/video session transcripts** using 9 different summarization techniques (abstractive & extractive) and **evaluates the summary based on 4 different metrics.** This was beneficial to document various sessions held during conferences at Syracuse University.
- Created an efficient and scalable multithreaded backend/pipeline using **Django and Celery** which handles requests, validates & stores user input, runs the summarizer engine and deletes user files once the session is closed.
- Designed a UI using **React** that takes input from user in the form of text or file, provides options to select a specific summarization algorithm and displays the summary and it's evaluation.
- Delivered an **average summary score of 0.7** across all techniques per user.

CONTACT

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EDUCATION

M.S. in Computer Science
Syracuse University

📅 Aug 2019 – May 2021

Syracuse, NY

B.E. in Information Science and Engineering
Visvesvaraya Technological University, B.N.M.I.T

📅 Aug 2013 – June 2017

Bangalore, India

TECHNICAL SKILLS

Programming Languages

C++, JavaScript, Python, Java

Web Programming

React, React Native, Node, Express, ES6, Webpack, Django

Database

MySQL, PostgreSQL, InfluxDB, MongoDB

Machine Learning

Regression, Classification, NLP, Clustering, Neural Networks, Optimization, Hyperparameter Tuning

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Other

Git, Unix, Android, Unity, Arduino, Grafana, Highcharts, Apache Tomcat