VINDHYA RAVI PRAKASH

Full Stack Developer

EXPERIENCE

Hewlett Packard Enterprise ***Houston, TX***
System/Software Engineer *June 2021 - present*
- Sustaining HPE Apollo systems in HPC & MCS department.

IT Technology 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 in the future.

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 the missing values in any dataset, which in turn increase accuracy and reduce 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.
- Successfully implemented the algorithm using **Lasso Regression** to identify the feature, **KNN imputer**, variance accuracy to score the missing instances. Obtained a **MSE of 5.46** for the model that predicts the score of the missing instances that 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. Centre for Nano Science and Engineering (CeNSE), 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 Vision API** to detect and classify food alongside regular text based input. Further, 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 inventory captured.
  - Nutrition: Designed and implemented a database in **Firebase** to store user 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 and 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 evaluation of the summaries.
- 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, Django

Database

MySQL, PostgreSQL, InfluxDB, MongoDB

Machine Learning

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

Other

Git, Unix, Android, Unity, Arduino, Grafana, Highcharts, Adobe Creative Cloud