MEGHSHANTH SARA

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EDUCATION

Santa Clara University, Santa Clara, CA **Master of Science, Jun 2024**

- Major in Computer Science and Engineering

Global Academy of Technology, Bengaluru, KA, India **Bachelor of Engineering, Jul 2022**

- Major in Computer Science and Engineering

SKILLS

- Java | Python | C++ | C | HTML | CSS | JavaScript/TypeScript | Dart | SQL | REST API. Learning: Swift, Kotlin
- Flutter SDK | MySQL | GitHub | Docker | Kubernetes | Postman | XAMPP | Linux | VirtualBox | Firebase and Google Cloud Platform | Android Studio | VSCode | Eclipse | Jupyter Notebook | Google Colab | IntelliJ IDEA | NoSQL | JSON | phpMyAdmin | Figma | Learning: AWS
- Android/Mobile Application Development | Machine Learning (ML) | Artificial Intelligence (AI) | Web Development | Database Management | Data structures and Algorithms | Backend Development | Full Stack Development | UI/UX Design

EXPERIENCE

App Developer

Frugal Innovation Hub - Santa Clara University, Santa Clara, CA **Sept 2023 - Present**

- Led a team of four, currently, leading a team of 3 in developing mobile apps (Android and iOS) for school tutors, and for the parents of the students to share information regarding weekly sessions, inter-app conversing, and event notifications. We developed apps primarily using Flutter SDK and Dart programming language. We used Figma for designing and planning.
- This project is for the Hispanic community, hence info on the app for parents is displayed in Spanish.
- Followed Software Development Life Cycle and Agile methodologies during the project's CI/CD and testing.
- Firebase Services, Google Cloud Platform(GCP), TypeScript for Firebase cloud functions, GitHub, Android Studio, and Xcode.

Developer Intern

Kramah Software, Bengaluru, KA, India **Sep 2021 - Nov 2021**

- Managed and optimized multiple web pages of cloud-based NAAC Software as a full-stack developer intern and contributed to the application that different colleges in India can use to assess the institution's strengths and weaknesses according to the NAAC organization's manual.
- Primarily involved in developing UI design, backend, and database management to fit the criteria of the NAAC accreditation.
- Utilized HTML, CSS, PHP, JavaScript, Java, and SQL with XAMPP Apache Server and phpMyAdmin for the database.

PROJECTS

(Currently participating in hackathons: Reddit Games and Puzzles and AWS Game Builder Challenge)

RevisionAI, UC Berkeley AI Hackathon 2023

- Part of a 3-member team, developed an AI-powered web application, to provide high-quality summaries and key topic highlights from class recordings for exam preparation, utilizing Whisper, GPT-3.5, LangChain, and various frontend frameworks.
- Overcame GPU resource management challenges by implementing RunPod for efficient Whisper large model execution in the backend and passing the summary generated by GPT 3.5 to the frontend. My tasks were API calls, model integration, and training. Devpost: Link.
- Technologies used: Flask, HTML, CSS, Python, React, JavaScript, Whisper, GPT-3.5, and LangChain.

Synthetic Data Generation for NSL-KDD Dataset

- Part of a 3-member team. Generated synthetic data using CTGAN for the NSL-KDD dataset to improve various Random Forest Classifier models training for network intrusion detection.
- We trained models on blends of original and synthetic data (blend contains synthetic data in percentages varying from 0, 25, 50… to 97, 98, 99, and 100), evaluating performance via accuracy, precision, recall, and validation metrics. I mostly plotted and analyzed the results.
- With Python on Google Colab, leveraging libraries: Pandas, NumPy, Matplotlib, Seaborn, Scikit-learn, Pickle, and CTGANSynthesizer from SDV. GitHub: Link.

Prediction of Foreign Exchange Rates

- Developed a project to compare accuracy among Machine Learning algorithms ANN, LSTM, and GRU for future foreign exchange rate prediction using a dataset comparing prices between INR/USD in timeline 01/2016 - 01/2023 using Python on Google Colab.
- We identified ANN as the most accurate algorithm for near-accuracy predictions, compared to other algorithms for a given time-series dataset. Using Python on Google Colab, libraries: Keras for ML models, Pandas, Numpy, Sklearn, Matplotlib, and Tensorflow GitHub: Link.

Drive Safe, INRIX Hackathon 2023 at Santa Clara University

- A web application (intended for mobile app), designed to provide routes for driving learning individuals, depending on the difficulty tier selected. The judges selected this project as "One of the Top 8 Hackathon projects" for the intent and idea behind the project.
- Developed the Application using Figma for design, JavaScript, Python, HTML, CSS, React, Flask, Node.js, and Vite. Devpost: Link.