Shreyas Adireddy

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Education

Computer Engineering at the University of Florida   **Bachelor's in Engineering**

Relevant Coursework: DSA, Software Engineering, Data Science, Digital Logic, µP Applications, Computer Organization, Digital Design

Technical Skills

Python • C++ • C • HTML w/ CSS • Javascript/TypeScript • React • MongoDB • Express.js • Node.js • Flask • NumPy • Scikit-learn

Projects

FinAna *(Full Stack, Typescript, Machine Learning)*
- Developed a MERN **(MongoDB, Express, React, Node.js)** stack app.
- Built a Finance Analysis app with a **scatterplots, bar charts, pie charts, and line charts** to visualize revenue.
- Used **Material UI** and **Recharts** for the front end and **MongoDB** and **Mongoose** to get data from the backend **NoSql** database.
- Added Linear Regression to the sales data to predict next years sales.

Machine Learning from Scratch! *(Python, NumPy)*
- Created common statistical machine learning models from scratch in NumPy.
- Developed models such as **K-Nearest Neighbors (KNN), Support Vector Machine (SVM), Decision Trees, Linear Regression, and Logistic Regression**. I gained a strong ability to translate mathematical concepts into working code, while also gaining valuable experience in working with real-world datasets.

bNicer (SASEHack 1st place) *(Full Stack, Python, C++)*
- Secured first place during SASEHack and won a **prize of $1000**. Our winning solution involved the development of a **deep learning network** using **Tensorflow Keras**.
- Trained our network on a large **Twitter dataset** to accurately identify negativity in user comments through **natural language processing**. To combat these issues, we provided users with informative articles aimed at educating against such behaviors.
- To ensure a user-friendly experience, we designed a visually appealing front-end interface for the website using **Streamlit**. Our neural network implementation utilized **Jupyter Notebook, Python, TensorFlow, and the transformers package.**

Personal Website *(HTML, Tailwind CSS, JS, React)*
- Developed a dynamic and interactive **React** website using **HTML, Tailwind CSS, and JavaScript**. Leveraging the power of **React's** component-based architecture, I built a responsive **user interface** that provides a seamless user experience.
- Deployed the React app on **Azure.**

Work Experience

Researcher at APRILabs *(Assistant)*   **Aug 2022 – Dec 2023**
- Assisted graduate students in understanding **C code** and use **Linux** machines.
- Worked on **SLAM**(simultaneous localization and mapping) of an unknown environment through **ROS 2** foxy distro.
- Simulated robots in **Gazebo** with pathfinding.

University of Florida Discrete Math *(Teaching Assistant)*   **May 2023 – Present**
- Played a crucial role in **facilitating student learning.** My section performed 15% better than the other sections.
- Assisted 380+ students in fostering their problem-solving abilities. This experience **sharpened my communication** skills as I effectively explained intricate **ideas in a clear and concise manner**.

Activities

Learning Assistant for Calculus 2 *(Assistant)*   **Jan 2023 – May 2023**
- Assisted students with Calculus 2 homework three times a week, reviewing their problems prior to class and supporting the professor in class.
- Strengthened Calculus 2 knowledge and honed teaching, problem-solving, and **communication skills** through regular interaction with students and facilitating comprehensive solutions.

Officer Team of PC Building Club   **Jan 2022 – Present**
- Helped secure **$30,000** to spend on a streaming setup from where we can build PCs and multiple PC builds.
- Facilitated social events to increase members and network.