Shreyas Adireddy

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Education

University of Florida BS Computer Engineering **Major GPA: 4.00**

Relevant Coursework: Programming 1 & 2, Digital Logic, Microprocessor Application, DSA, Computer Organization, Digital Design, Circuits 1

Technical Skills

Programming Skills: Python • C++ • C • HTML w/ CSS • JavaScript • React • Flask • Streamlit • Azure • SQL • NumPy • SFML • Scikit-Learn • Jupyter Notebooks • OpenCV • Pandas • Ubuntu • GitHub • Git • Arduino IDE • Quartus

Projects

Machine Learning from Scratch! *(Python, NumPy)*

- Created common statistical machine learning models from scratch
- Developed models such as **K-Nearest Neighbors (KNN), Support Vector Machine (SVM), Decision Trees, Linear Regression, and Logistic Regression**. Through this project, I have developed 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.**

Minesweeper *(C++)*

- Implemented a fully functional Minesweeper game using C++ and SFML, showcasing proficiency in **object-oriented programming** and **GUI development**.
- Developed game logic, tile generation, and user interface features to provide an immersive gaming experience. Strengthened understanding of software development principles and honed skills in C++ programming.

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.

Paid Teaching Assistant for Discrete Math in CISE department (*Assistant)* ***May 2023 – Present***

- Played a crucial role in **facilitating student learning.**
- Assisted 150+ 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.

FISCAL 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.