Mikias Tadele

mikias7t@gmail.com ● 267-469-2596 ● linkedin.com/in/mikias-tadele/ ● github.com/Mikias7

SKILLS

Frontend: JavaScript | TypeScript | React.js | Three.js | Bootstrap | Tailwind CSS | HTML | CSS | antd

Backend: Python | Java | C++ | R | MySQL | Node.js | Express.js

Other: Git | API | AWS | Docker | Machine Learning | Robotics | Computer Vision | Blender | Unity | Jira | Confluence

EXPERIENCE

MyRaina, West Chester, PA — January 2025 - Present

Software Engineering Intern

- Developed machine learning algorithms to track and analyze assistive device usage, aiming to prevent elder care falls.
- Built data pipelines for preprocessing and augmenting assistive device images, optimizing model accuracy.
- Created synthetic image generation software to diversify datasets and minimize overfitting.
- Developed a React component with custom hooks and API integration to display assistive device misuse results and inform caregivers.

Communications Test Design Inc. (CTDI), West Chester, PA — May 2024 - August 2024

Software Engineering Intern

- Automated Amazon product testing using a robotic arm, reducing testing time by 45% and earning recognition from the CEO for improving efficiency.
- Designed and implemented a motion recording and playback mechanism for robotic arms, reducing development times.
- Leveraged computer vision to enhance the precision and control of robotic arm movements, optimizing accuracy in testing workflows.

PROJECTS

Augustana University Voting Platform

- Developed a full-stack voting platform using React and Node.js to replace Augustana's outdated system, improving reliability, security, and user experience for 2,000+ students during campus elections.
- Implemented secure student authentication, anonymous encrypted voting, and real-time ballot processing, while integrating a custom chatbot assistant to guide users and reduce confusion during voting.
- Collaborated with a team to deliver the project, earning $2,500 for our work.

Solar Eclipse Simulation Software

- Built an interactive solar eclipse simulation tool for Augustana's Astronomy class, enabling students to calculate eclipse paths, timings, and visualizations for use in coursework and assignments.
- Implemented the project in pure vanilla JavaScript with reusable, modular components inspired by React, optimizing the codebase for scalability and long-term maintainability without external dependencies.
- Collaborated on improving existing astronomy class simulation software by refactoring code, creating reusable components, and enhancing overall performance and stability.

Data Augmentation Program

- Developed a Python program to augment image data for machine learning models, using OpenCV to modify hue, brightness, position, and noise.
- Reduced image labeling time and improved dataset diversity, helping reduce overfitting and enhance machine learning model performance.

EDUCATION

Augustana University, Sioux Falls, SD

Bachelors in Computer Science and Software Engineering, GPA: 3.6

Relevant Coursework: Data Structure and Algorithm, Software Engineering, OOP, Machine Learning and AI, Database Management, Data Science, Website Development, Probability and Statistics , Discrete Math, Calculus