

EDUCATION

California Polytechnic State University- *Computer Engineering: GPA: 3.9, 2023-2026*

EXPERIENCE

Frontend and Integration Lead-*CodeDay Labs AI software debugger: 2024-present*

- Developed and fine-tuned a custom OpenAI model using Pinecone databases to deliver real-time debugging assistance to students, improving code error detection accuracy by 15%.
- Worked with a team of diverse engineers to build a React.js frontend for the web platform
- Integrated and deployed the application on Fly.io, ensuring continuous uptime
- Worked with CodeDay, an organization serving over 70,000 users, to provide accessible, AI-powered debugging tools that reduced student error-resolution time during coding.

Computer Vision Engineer-*Pneumonia Detection Team: 2022-2023*

- Worked with a team of engineers to develop a piece of Computer Vision software to detect Pneumonia from X-ray images.
- Spearheaded computer vision team and utilized TensorFlow and Sklearn to train and deploy a Convolutional Neural Network that achieves 90.8% accuracy for pneumonia detection.
- Collaborated with coworkers to create a powerpoint detailing this achievement and present it.

PROJECTS

Lead Software Engineer -*Video Game, Farmland: 2023-2024*

- Utilized Javascript, HTML, and CSS to create a complex video game with different maps
- Used 2 dimensional arrays and a custom built camera tracking code to follow the character
- Created a dynamic and robust implementation of a farming game previously hosted on Github with crop growing mechanics, harvesting, and inventory management.

uROV competition team -*Hardware & Software Engineer: 2023-present*

- Used python sockets to communicate with the ROV from the ground station
- Researched vectored thrust calculations and configurations
- Fixed a leaking area in the electronics hub aboard the ROV
- Used SolidWorks to model electronics enclosure

FRC team 2473 -*Hardware Engineer: 2022-2023*

- Planned the wiring, fit the roboRIO, spark MAX motor controllers, pneumatic tanks, and NVIDIA Jetson onto a small chassis using SOLIDWORKS.
- Designed the 2 tank pneumatics system and retrofitted it with a better valve.
- Utilized SOLIDWORKS to design structures in order to mount the pneumatics system our team setup to fit onto the polyethylene board holding all electronics.

TECHNICAL SKILLS

- Python, Tensorflow, Seaborn, Sklearn, Solidworks, Java, Javascript, HTML, CSS, Soldering, Onshape, Git, FPGA programming, Pinecone Vector Databases, Vercel, Fly.io, React.js, RISC-V, System Verilog