

WORK EXPERIENCE

Software Engineering Senior Capstone, OMIC & Oregon State September 2021 - June 2022
([Public GitHub](#)) ([Research Paper & Log](#))

- Worked with a large multi-discipline team creating a [portable 5-axis 3D printer and research paper](#) for the OMIC Research & Development department.
- Presented weekly project updates to stakeholders and kept a [detailed log of team activities](#).
- My responsibilities were developing [sensorless collision detection](#) using EMF monitoring, [Arduino serial communication](#), and all [firmware onboard the printer's](#) microcontroller.

Data Science Intern, Lawrence Livermore National Lab June 2021 - September 2021

- Trained competitive multi-agent reinforcement learning models in simulated environments.
- Defined metrics for measuring the performance, level of cooperation, and identifying emergent behaviors of agents.
- Created tools for the automated testing and comparison of different models.

PROJECTS

Local Server with Cloud Support ([GitHub](#)) 2022

- Made NoSQL database system from scratch and hosted it on a Raspberry Pi Server.
- Set-up local network to pass files or data [over ethernet to client computers](#) using the Python Socket Library or send files [online using discord bots](#).

Automated Video Editor ([GitHub](#)) 2021

- Wrote a library for automating the [frame-by-frame editing and creation](#) of mp4 files using FFmpeg.
- Used Google Tesseract-OCR and OpenCV to [identify text and critical points](#) and tied animation speed to the Text-To-Speech voice speed.

Real-Time JavaScript Browser Game ([GitHub](#)) ([Game Link](#)) 2020

- Lead team of 4 in creating [2D physics engine from scratch](#) in JavaScript.
- Hosted the game on University Servers and used NodeJS and [HTML handlebars to make a full website](#) with accounts and scores [stored on the back-end](#).

Python-Based Home Assistant ([GitHub](#)) 2019

- Used Google's [natural language processing API on live audio](#) to [find keywords and extract needed information](#) from the spoken command.
- Set up access to many APIs allowing the assistant to search google, define words, give detailed descriptions of topics, and play music or videos. (Oxford Dictionary, Wikipedia, Youtube, ect.)

EDUCATION & SKILLS

Oregon State University, Graduated December of 2022 with a BS in Computer Science, 3.5 GPA

Courses or Experience in: High ☒ ☐ ☐ Moderate

Python Git C++ Rasp Pi Pandas HTML & CSS JavaScript OpenCV Kotlin
REST APIs C HTTP LaTeX MongoDB RL CNNs Docker Google Cloud R
NodeJS MySQL Postman Arduino AWS Insomnia