



EDUCATION

University of Utah

Computer Science with Games Emphasis: **GPA 3.98/4.0**

Salt Lake City, UT
May 2021 - Dec 2025

Cybersecurity Boot Camp

CompTIA Security+ compliant

Online
Feb 2022 - Aug 2022

EXPERIENCE

University of Utah School of Computing

Teaching Assistant

Salt Lake City, UT
Aug 2022 - Present

- Helped **100+ students** pass Accelerated Introduction to Object Oriented Programming with **Java** with a B or better
- Prevented **5+ students** from failing and helped to retain them in their major as a Retention Teaching Assistant
- Led weekly labs, code-reviewed, held review sessions for exams, and provided feedback for assignments in **Java**

PROJECTS

NASA Lunabotics | *Rust, tokio, nalgebra, rayon, crossbeam, ffmpeg*

Aug 2023 - May 2024

- Established a complete robotics framework and ecosystem from scratch (only team to do so)
 - Programmed a robot that digs and dumps **autonomously**, and uses a 2-pilot system for driving remotely
 - Achieved **3rd place** out of 50 universities and the US military at the Kennedy Space Center
- Demo:** youtu.be/watch?v=OvzOrHbLd_M **Source:** github.com/utahrobotics/lunadev-2024

PortalCrawler | *Godot*

May 2024 - Aug 2024

- Led 4 other members in a Traditional Game Development Class Project
 - Implemented all the enemy AI and pathfinding, shop, and level system, leveraging **state machines**
 - Utilised Github Issues, Milestones, and Projects for team management with **Agile** workflow
- Demo:** itch.io/portalcrawler **Source:** github.com/manglemix/PortalCrawler

Pony Express | *React, SQLite, FastAPI, poetry, Tailwind CSS, Amplify, EC2*

Jan 2024 - May 2024

- Prototyped a real-time, responsive chat application that allows users to send messages to each other over a database
 - Maintained conclusive **unit tests** for the backend using **FastAPI**, and deployed the frontend to a public domain
- Source:** github.com/manglemix/pony-express

deTrash | *Vercel, Sveltekit, Flask, TypeScript, Google Maps, YoloV5, GPT 3.5*

Oct 2023

- Produced a frontend that used **computer vision AI** to identify trash in user submitted images and track their locations on a heat-map to help non-profit trash clean-up organizations plan their routes and save on gas
 - Achieved **2nd place** out of 247 other teams for 24 hours in the Hack OHI/O 11 hackathon
- Demo:** trash-tests.vercel.app **Source:** github.com/manglemix/hackohio-frontend

SKILLS

Languages: Rust, Python, Javascript, Typescript, HTML, CSS, C, C++, C#, Java, Kotlin, SQL

Technologies: AWS (S3, EC2, DynamoDB, Amplify, Lambda, Cognito, Pinpoint, SES), Azure, Docker, Vercel, GitHub Actions, WebRTC, WebSockets, Svelte, React, SQLite, Ansible, Tailwind, Qt, MAUI, Django, FFmpeg, Linux

Game Engines: Godot, Unreal Engine 5, GameMaker, Unity

Activities: Programming team lead of Utah Student Robotics; President of the Undergraduate Student Advisory Committee; Member of National Society for Leadership and Success

INTERESTS

Rock Climbing since 2019 (V5, 6b+); Practicing drumming since 2023; Hobbyist photographer pexels.com/@manglemix/