



EDUCATION

University of Utah Computer Science with Games Emphasis: GPA 3.98/4.0	Salt Lake City, UT Aug 2025
Cybersecurity Boot Camp CompTIA Security+ compliant	Online Feb 2022 - Aug 2022

EXPERIENCE

University of Utah School of Computing <i>Teaching Assistant</i>	Salt Lake City, UT Aug 2022 - Present
<ul style="list-style-type: none">Helped 100+ students pass Accelerated Introduction to Object Oriented Programming with Java with a B or betterPrevented 5+ students from failing and helped to retain them in their major as a Retention Teaching AssistantGraded assignments, held in-person office hours, ran labs, proctored exams, provided review sessions, etc.	

PROJECTS

PortalCrawler <i>Godot</i>	May 2024 - Aug 2024
<ul style="list-style-type: none">Led 4 other members in a Traditional Game Development Class ProjectImplemented all the enemy AI and pathfinding, shop, and level system, leveraging state machinesUtilised Github Issues, Milestones, and Projects for team management with Agile workflow Demo: itch.io/portalcrawler Source: github.com/manglemix/PortalCrawler	
NASA Lunabotics <i>Rust, tokio, nalgebra, rayon, crossbeam, ffmpeg</i>	Aug 2023 - May 2024
<ul style="list-style-type: none">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 remotelyAchieved 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	
deTrash <i>Vercel, Sveltekit, Flask, TypeScript, Google Maps, YoloV5, GPT 3.5</i>	Oct 2023
<ul style="list-style-type: none">Produced a frontend that used computer vision AI to identify trash in user submitted images and track their locations on a heatmap to help non-profit trash cleanup organizations plan their routes and save on gasAchieved 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	
WebRTC Signalling Server <i>Rust, tokio, axum, rustls, letsencrypt, EC2</i>	Aug 2023
<ul style="list-style-type: none">Created a WebSocket API that connects WebRTC clients together with a room code that is resistant to abuseDesigned to be performant, and production ready with TLS using crates.io/crates/hypermangle-core, which is a crate that was developed concurrently for this project to massively simplify the process of creating HTTPS secured APIs Source: github.com/manglemix/webrtc-service	

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, 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/