

EDUCATION

Masters in Software Engineering – Carnegie Mellon University August 2022 – December 2023

- Overall GPA: 3.77/4

Bachelor of Science in Computer Science – University of Pittsburgh September 2015 – December 2019

- Overall GPA: 3.50/4
- Minor in Chemistry
- Earned 514 MCAT – 90th percentile (2019)

PROFESSIONAL EXPERIENCE

Junior Software Developer at D'Angelo Technologies – Beavercreek, OH February 2021 – July 2022

- Employed as a full stack developer for software built on vehicle simulator for a government client, typically in C#, C++, Python, and JavaScript, but also in R and Swift
- Managed tasks in Kanban board, work efforts via scrum framework, and Bitbucket with git for project coordination/maintenance
- Displayed initiative by developing and maintaining project solo, self-assigning work by priority while leadership were at capacity with other projects
- Evaluated various solutions for speech to text and text to speech functionality, then implemented solutions for both into project, working with Docker, Microsoft's Universal Windows Platform, and various speech to text libraries
- Scripted and trained a neural regression network in Python (PyTorch) to aid in auto-piloting ships in a ship simulator
- Architected and developed from scratch both a prototype WinForms and a product WPF app to serve as a hub app for project's software suite
- Implemented a database in NoSQL using MongoDB (C++, Compass), and messaging between services using ActiveMQ (C++, C#) to act as a learning record store and to support a replay system in simulator with more features than *Super Smash Bros. Ultimate's* replay system

Research Assistant in Robin E. C. Lee's Lab – Pittsburgh, PA May 2019 – August 2019

- Developed software as a lone programmer in a wet lab environment for one of the lab's ongoing projects, working in C++, Java, and Python (pandas, NumPy)
- Participated in hardware development, working with a microcontroller and configuring a circuit board to control a microfluidic chip
- Architected an Android app from ground up to interface with microcontroller in Java over a Bluetooth network

PROJECTS

Mastodon Server 2022 – Present

- Set up a mastodon federate together from mostly scratch with a friend. Now maintaining the server and working on UI design to thematically differentiate it from other instances. Some of technologies needed to familiarize with to get instance up and running were nginx, Docker, Linux/Ubuntu, ssh, Redis, DNS lookups, SMTP servers

3D Interactive Portfolio 2021 – Present

- Created a 3D portfolio with three.js, viewable on personal website. Showcases personal technological efforts and projects in different worlds belonging to a celestial system in a miniature universe
- Written with HTML/CSS using a minimal css framework called pico css

AutoSage 2021

- Created a Python app for users of BeatSage, an AI driven service made for popular VR rhythm game Beat Saber
- Simplifies and automates BeatSage usage for any songs a user wishes to play in Beat Saber
- Updated to be packaged into a Windows executable leveraging PyInstaller for a better user experience, features a UI built with Tkinter for ease of use

What Song Is That? Twitter Bot 2020

- Designed, developed, and self-hosted a twitter bot for both the fun and learning experience on own Raspberry Pi (Raspbian GNU/Linux 10) server, for a friend's twitter account
- Takes requests from users who wish to know what song is playing in a tweet, queries Shazam's API on user's behalf and displays its findings on a static website created just for it. It has fielded over two thousand song requests so far

SKILLS

Windows, Python, C++, C#, TypeScript, JavaScript, Linux, HTML, CSS, Java, Unity, MongoDB, NoSQL, C, three.js, Docker, requests, redis, numpy, pandas, selenium, beautifulsoup, Tkinter, Android/iOS App Development, pytorch