# Alan Munirji

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## EDUCATION

**Masters in Software Engineering — Carnegie Mellon University**

August 2022 - December 2023 (Anticipated)

**B.S in Computer Science — University of Pittsburgh**

September 2015 - December 2019

- Minor in Chemistry
- Overall cGPA: 3.504
- Computer Science cGPA: 3.71

## PROFESSIONAL EXPERIENCE

**Junior Software Developer at D'Angelo Technologies — Zelienople, PA**

February 2021 – July 2022

- Employed as a full stack developer for software built on ship simulator for a government client, typically in C#, C++, Python, and JavaScript, but also in R and Swift
- Managed tasks using a Kanban board, work efforts using the scrum framework, and bitbucket with git for project coordination/maintenance
- 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 autopiloting ships in a ship simulator
- Developed from scratch both a WinForms and WPF app
- Implemented a database in NoSQL using MongoDB (C++, Compass), and messaging between services using ActiveMQ (C++, C#)

**Research Assistant in Robin E. C. Lee's Lab — Pittsburgh, PA**

May 2019 - August 2019

- Developed solo 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
- Developed an Android app from the ground up to interface with the microcontroller in Java

## PROJECTS

**What Song Is That? Twitter Bot (2020)**

- Wrote and hosted a twitter bot for both fun and the learning experience on my own Raspberry Pi (Raspian 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 their behalf and displays its findings on a website I created for it. It has successfully fielded over a thousand song requests so far
- Checkout https://alanmun.github.io/WhatSongIsThat/ for more information

**AutoSage (2021)**

- Developed a Python app for users of BeatSage, an AI driven service made for the popular VR rhythm game Beat Saber
- Simplifies and automates the process of using BeatSage for all of the songs the 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

**3D Interactive Portfolio (2021)**

- Created a portfolio using three.js that shows my 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
- Viewable on my website: [alanmunirji.dev](alanmunirji.dev)

**Miscellaneous Projects (2015-Now)**

- Completed different school projects using the following languages: C, C++, Python, Java, Ruby, and Matlab
- Coded in Python (including selenium and beautifulsoup), C#, and TypeScript through various personal endeavors

## SKILLS (in order of most to least experience)

Python, C++, C#, TypeScript/JavaScript, Linux, HTML/CSS, MongoDB, NoSQL, C, Java, three.js, requests, numpy, pandas, selenium, beautifulsoup, tkinter, Android/iOS App Development, Matlab, Docker, pytorch, R, Swift, Ruby