williamozeas@gmail.com (818)-421-4380

Unity | C# | C | C++ | Standard ML | Python | React | Git | FMOD

## **Education**

# Carnegie Mellon University, Pittsburgh, PA

Bachelors of Computer Science and Arts (Music) - GPA: 3.96 - Expected Graduation May 2023

## **Relevant Coursework**

Principles of Imperative Computation, Parallel & Sequential Data Structures & Algorithms, Intro to Computer Systems, Computer Graphics, Principles of Functional Programming, Computer Security, Twisted Signals: Multimedia Processing

# **Work Experience**

Software Development Intern, Amazon; Remote (Seattle, WA) — June-August 2020

- Implemented React front end of internal website to help Amazon monitor delayed orders from 3rd party sellers.
- Gained experience working in teams and learning new technology at large companies. Collaborated with other interns and employees to design an API to access an order database.

## Web Developer, CV Enterprises; La Crescenta, CA – January-June 2019

• Designed "Injury Tracker" web app designed in Ruby on Rails using a SQLite database to store information about injuries for high school sports nurse. Team of 2.

# **Projects**

Games

# polyrhythm - All Programming Unity, C#

2021

- Created rhythm game solo project with over 3.000 written lines of code.
- Designed event system to synchronize music and gameplay using FMOD callbacks.

#### Haunted VR - Sound Implementation Unity, C#

2021

- Sound for a VR horror game in a team of 37. Interfaced with FMOD middleware.
- Implemented 40+ effects including an adaptive piano sound effect based on an object's speed.

## Death Road To Doggie Town - UI Programming & Sound Implementation. Unity, C#

2021

- Sound & UI for an 80's themed endless runner in GMTK Game Jam. Won 442/5,755 games in presentation.
- Gained experience working quickly and efficiently through 48 hour game jam.

### Escape From Lab 8 - Gameplay Programming & Sound Implementation. Unity, C#

2020

- Programming for traditional rogue-like. Collaborated with 8 other programmers to work with rogue-like framework.
- Worked with two composers to implement adaptive soundtrack.

#### 2019

2021

## Octave - Gameplay Programming. Lua

Created core gameplay loop for rhythm game in a team of 10.

## Other

# Scotty3D - Graphics Programming C++

• Implemented several features in a 3D modeling software, including several mesh transformations, realistic lighting using path-tracing, and animation rigging.

#### Malloc Project - Systems Programming C

 Implemented memory allocator in C with more efficient throughput and utilization than the standard C library through aggressive optimization.

# **Shell Project - Systems Programming C**

2019

• Wrote a shell in C, capable of running and managing foreground and background tasks using signal handlers and child processes.

## **Activities**

### Carnegie Mellon Game Creation Society - Programmer, Sound Designer, Composer - 2019-Present

Created a game on teams of 6-14 every semester at Carnegie Mellon.

#### Undertale Online Orchestra - Co-Founder, Council Member, Mixer, Editor, Performer, Arranger - 2016-2019

• Lead worldwide group of musicians remotely covering the soundtrack of the game Undertale. 80+ collaborative YouTube videos, managed over 200 members. Mixed songs with 50+ recordings.

#### 4-Piano Orchestra, YouTube Channel — 2015-current hiatus

• Arranging/Performing music from games and shows for 4 pianos. Included extensive audio mixing, visual editing and performance, with elements of graphic design and costuming. Gained over 5,000 subscribers and 1.9 million views.