

Education

Carnegie Mellon University

QPA 4.00 (August '21 - current)

Selected Coursework:

- Principles of Imperative Computation
- Principles of Functional Programming
- Introduction to Computer Systems
- Parallel and Sequential Data Structures and Algorithms
- Intro to Computer Music

Teaching Experience

Carnegie Mellon University

Teaching Assistant (August '22 - current)

- Co-lead recitations and office hours for introductory CS course focused on teaching programming concepts and fundamentals using Python.

Code Ninjas Hanover

"Sensei"/Instructor and Minecraft Summer

Camps Lead (May '19 - August '22)

- Ran weekly drop-in sessions where kids learn to code through game design.
- Instructed summer camps on topics such as Minecraft mod development, Minecraft moviemaking, Roblox game development, and stop motion animation.
- Designed and led virtual Minecraft-themed summer camps during summer 2020.

Black Rocket Productions

Assistant Instructor (June '22 - August '22)

- Assisted in running various summer camps, including mock trial, 3D game design, and Minecraft redstone engineering.

Programming Languages

Advanced

- Python
- C#/Unity
- C
- SML
- Scala

Proficient

- Java
- JavaScript
- LUA

Programming Experience

KeYmaera X Development

Scala (June '22 - current)

- Implemented Z3 SMT solver proof output integration into the KeYmaera X theorem prover.

Game Creation Society Fall 2022 Project

C#/Unity (September '22 - December '22)

- Worked on a team to create a wave-based multiplayer shooter-platformer game, *Dimensional Rift*.
- Implemented enemies, weapons systems, weapon UI, and infinite wave generation.
- Team awarded GCS Gold for best game of Fall 2022.
- More information about our game available at https://www.gamecreation.org/games/dimensional_rift

Fundamentals of Programming Final Project

Python (November '21 - December '21)

- Designed and programmed chess application using Python that supported user-created boards and pieces and a minimax computer opponent.
- Awarded second place overall out of all final projects submitted.

Pennsylvania Governor's School for the Sciences Computer Science Team Project

Python (July '20)

- Worked on a team to develop minimax Python algorithm to play mancala against humans. Algorithm beat human opponents 5 out of 6 times.

Other Extracurriculars

School of Computer Science Student

Advisory Council (January 2021 - current)

- Managed scheduling freshman orientation presentation about SAC's diversity and inclusion efforts.
- Planned and ran class meetup events.

Kiltie Band (August 2021 - current)

- Clarinetist for Kiltie Band, Carnegie Mellon University's marching and concert band.