Youwei Jiang

+1 (412) 996-9894 jerryjiang0910@gmail.com
linkedin.com/in/jerryjianguv github.com/jerryjianguv

Education

Carnegie Mellon University **May 2025**
BS in Computational and Applied Mathematics, Artificial Intelligence, minor in Software Engineering *Pittsburgh, PA*

- Selected Courses: Fundamentals of CS, Imperative Computing, Computer Systems, Functional Programming, Machine Learning, Principles of Software System, Linear Algebra, 3D Calculus, Probability Theory, Concepts of Mathematics

Skills

Programming Languages: Python, C, C++, Java, Javascript, SML, SQL, Swift
Framework and Tools: Github, MATLAB, VSCode, XCode, MongoDB, HTML/CSS, Node.JS, MySQL
Languages: English, Chinese, Spanish

Experiences

Codepath Courses **Jun 2022 – Present**
Advanced Software Engineering, iOS development, Cybersecurity, Web Development *Remote*

- Learned basic data structures and algorithms of software engineering and programming, practiced programming problems and communicated the process.
- Designed wireframes, UI, and cloud-based API; learned fundamentals of iOS application development in Swift using Xcode.
- Learned fundamentals of cybersecurity, including IP and DNS exploits, social engineering, and data networking.
- Learned basics of web development, including HTML, CSS, Javascript, animation, and layouts.

HackCMU 2022 **Sep 2022**
Carnegie Mellon University *Pittsburgh, PA*

- Designed an interactive iOS app in Javascript within 24 hours in HackCMU in a group of 4, combining multiple education accounts and apps by introducing a gamified To-Do List.
- Facilitated healthy competition between students by utilizing proxy and scoreboard.

Projects

WeConnect-Social App | *MongoDB, Express, React, Node.js* **Dec 2022**

- Designed an online social media platform for developers and software engineers.
- Utilized NodeJS for back-end development, including a web server framework, HTTP client requests, and a database to store and encrypt passwords.
- Utilized React for front-end development, including data parsing, formatting, manipulation, and validation.
- Utilized MongoDB to design a database to store users, profiles, and posts.

8 Ball Pool Game! | *Python* **Dec 2021**

- Designed an interactive 2D 8 Ball Pool Game using mini-max Game AI and Monte Carlo simulation.
- Utilized Pygame to simulate ball scrolling, collision, bouncing, scoring, and sounds of ball hits and collisions.

Computer Systems Labs | *C* **Dec 2022**

- Cache Lab: Implemented a simulation of LRU Cache with hits, misses, and evictions, explored optimal algorithm to transpose matrices.
- Proxy Lab: Implemented a multi-thread concurrent HTTP web proxy that logs and filters requests.
- Malloc Lab: Developed an efficient dynamic memory allocator using segregated lists, supporting malloc, free, calloc, and realloc function calls.
- Shell Lab: Implemented the Unix shell that supports foreground and background processes, forks, and signal handlers.

C0 Virtual Machine | *C* **May 2022**

- Designed a Virtual Machine in C for C0, a typesafe language similar to C.
- Implemented features including stack frames, control flow, integer and pointer arithmetic, memory access, and other functionalities for C0VM.

Awards and Extracurriculars

Awards: Dean's List, HackCMU 2022 top 25%
Extracurriculars: CMU Quant Club, CMU Blockchain Group, CMU Summit, Intramural Soccer Club