William Huang

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Education

Carnegie Mellon University, *Bachelors of Science in Information Systems* 08/2020 – 05/2024
Double Major In Computer Science Pittsburgh, PA
GPA: 3.78/4.0

Skills

Programming/Web Development (C, SML, Java, SQL, Swift, Python, Android Development, Unity, HTML/CSS, Javascript, Vue.js)

Software (Git/Github, LaTeX, Excel)

Courses

Database Design & Development 08/2021 – 12/2021

Introduction to Computer Systems 08/2021 – 12/2021

Principles of Functional Programming 01/2021 – 05/2021

Great Ideas in Theoretical CS 01/2021 – 05/2021

Principles of Imperative Computation 08/2020 – 12/2020

Professional Experience

CMU Human-Computer Interaction Institute, *Research Intern/Developer* 05/2021 – 08/2021
- Designed and implemented an artificial intelligence based dashboard (Adaptive Peer Tutoring Assistant) as a team of four interns to help teachers with the dynamic transition from individual to collaborative learning.
- Developed the dashboard using HTML and CSS to implement the design, as well as Javascript and Vue.js for the suggestions based on analytics and real-time update functionality.
- Conducted user centered research with teachers to construct a dashboard that would be easier to use.

Russian School of Mathematics, *Tutor* 03/2017 – 10/2017
- Tutored students from Grades 1 - 8 in various mathematics subjects, such as geometry, arithmetic, and algebra and helped students develop basic proof techniques.

Projects

Caching Proxy Server 11/2021 – 12/2021
- Built a proxy server which allowed clients to connect and send requests to the proxy which gets forwarded into the server using C's robust I/O package.
- Implemented a cache aspect to this proxy server for completing faster requests of pages stored in the cache.

Dynamic Memory Allocator 10/2021 – 11/2021
- Built a simulated dynamic memory allocator for C using a segregated linked list structure.
- Achieved a 74.5% memory utilization usage by storing key data about the memory blocks as bits to minimize the impact of internal fragmentation.

C0VM 12/2020
- Built a virtual machine to simulate running code in the C0 language (a safe subset of the C language) by converting and processing bytecode instructions. Ensured that no memory leaks are present.

Organisations

Game Creation Society, *Programmer* 09/2021 – present
- Working on the Empyrean project (a First-Person Shooter developed with Unity)

CMIMC, *Math Problem Writer* 09/2021 – present

ScottyLabs, *Speaker, Tech programmer* 07/2021 – present

Winchester Math Competition, *Test Writer/Proctor* 09/2016 – 06/2020