Chu Yi Aaron Herr

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Education

B.S., Computer Science   Fall 2025

San Francisco State University, San Francisco CA

A.S., Computer Science

Clovis Community College, Clovis, CA, GPA 3.13

Software Technical Skills – C/C++, Java, Python, CMake, Git, Linux/Unix Environments, OpenGL, Data Profiling, Data Structures and Algorithms, Object Oriented Programming, Graphs Algorithms, Operating Systems, Unix/Linux, Software Design Patterns, Agile/Scrum Methodologies, Multithreaded/Concurrency development, Valgrind/Calgrind, virtual memory analysis, Networking protocols (TCP, UDP), Multi-platform development

WORK EXPERIENCE

University of California Berkeley, Berkeley, CA   September 2022 – Present
- Using C/C++, using the Qt framework and it's QMake build system.
- Developed multiple worker threads that have a single source process for streaming data to docking windows.
- Greatly showing my curiosity, and eagerness to learning in a quick and fast-paced environment, while still pursuing my degree in Computer Science.
- Helped in integration testing using Qt's QTest framework and continuous unit testing our code base for assurance of correctness.

Project Experience

Game Engine in OpenGL | GitHub   Fall 2023 - Present
- Implemented a Game Engine that has a basic Batch renderer in OpenGL.
- 2D camera movement and controller allowing to rotate and adjust Orthographic Camera.
- Implemented profiling tooling in the engine to help debugging and monitoring function call stack and time stamping.
- Provided thread safety when profiling for multiple sessions when profiling.

6502 Emulator | GitHub   Fall 2023 - Present
- Reversed engineered an 8-bit processor called the 6502.
- Emulated how virtual ram and rom read, write data to and from virtual memory.
- Developed the adder functions for the ALU as part of the emulator to do basic arithmetic operations.

Asm Compiler | Assignment
- In Computer Architecture, an assignment that I had to do was create a very basic compiler.
- Using ARM32 assembly and C++ to utilize tokenization and input parsing.
- Whereas using ARM32 to handle most of the logic such as conditionals, and basic arithmetic that would be done in assembly.

CLUB/ACTIVITIES

SJSU Robotics Club | GitHub   Fall 2023 – Present
- Worked in the Intelligence Systems division, collaborating and working with my team on the autonomy side of building the rover.
- Worked in fixing the GPS locking connection to the satellite.