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, 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)

**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](https://github.com/SpinnerX/Rocket-Game) Fall 2023 - Present

* Inspired in developing my own game engine to dive in working with different complex systems.
* Rendering textures, shaders in the form of draw quads.
* 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.

**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.

Algorithm Visualizer

* Utilizing the C++ SFML Graphics library to implement graphs algorithms.
* Purpose for this application was to visualize complex graphs algorithms ranging from your common graph’s algorithms to more complex algorithms.
* Algorithms from Dijkstra’s and A\* pathfinding, to visualizing Max flow graphs.

**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.