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++, Python, Git, Bash/Zsh Shell Scripting, Linux/Unix, Concurrency, Software Design Patterns, Agile, Scrum, GUI Development, GDB/Debuggers, Test Driven-Development(TDD), Data Structures Algorithms, Discrete Math

**WORK EXPERIENCE**

**University of California Berkeley**, Berkeley, CA September 2022 – Present

* Developed GUI Applications using C++ and the Qt framework.
* Contributed to designing the UI using QtCreator to design widget panels.
* Implemented docking windows that allow to display real time data to docking windows.
* Participated in meetings regarding designing and implementing new features.
* Worked in a multithreaded environment where managed worker threads have process for streaming data to the docking windows, where users can receive feedback.

**Project Experience**

**Game Engine in OpenGL** | [GitHub](https://github.com/SpinnerX/Game_Engine) Fall 2023 – Present

* Created in C++ a Game Engine for fun, what other way then to build a Game Engine from Scratch.
* Developed this Game Engine using C++, and OpenGL/GLFW rendering APIs for the graphics.
* Things learned when developing this engine was serializing/deserializing data to YAML files.
* Batch rendering multiple quads together, reducing the number of quads created.
* Understanding how an Entity Component System is used in a large engine of this scale.

**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

* In Computer Architecture, an assignment assigned by the professor was to make a simple visual basic compiler.
* The purpose is to teach how C++ works with assembly.
* Utilizing assembly to handle conditional, and arithmetic.
* Whereas using C++ to handle command and string parsing, including tokenizing commands to do basic visual basic logic.

**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.