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++ (17, 20), Python, CMake, OpenGL, Vulkan, ffmpeg, Git/Perforce, Data Structures and Algorithms, Object Oriented Software Design Patterns, Operating Systems, Multithreaded/Concurrency development, Unix/Linux environments, Valgrind/Calgrind, virtual memory analysis, Computer Architecture, Compilers, Parallel Processing, Virtual Memory analysis

WORK EXPERIENCE

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

- GUI development and concurrent programming with C++, having a track record in developing applications to efficiently handling multiple job execution.
- Designed and implemented a console docking window enhancing readability and end-user interaction.
- Ensuring in inter-class communication in multithreaded environments, thread-safe data transfer, and logging.
- Proven capability in leveraging the Qt framework and QMutex to synchronized how we access data in the LLSM application.

Project Experience/Academic assignments

Game Engine in OpenGL | GitHub Fall 2023 - Present

- Utilizing the GPU and the OpenGL for implementing platform specific rendering API's
- Driven with inspiration developing this game engine to work with complex systems design implementations.
- Implemented orthographic camera controls, rendering API calls in OpenGL that utilize the GPU.

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.

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.
- Developed using python, and various machine libraries such as Numpy to efficiently improve the rover for robotics competition.
- Worked in fixing the GPS locking connection to the satellite.