Chu Yi Herr

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Skills

- C | C++ | Java | Python | x86/ARM assembly | JSON | MSSQL | OpenCL | CUDA | Robotics | NoSQL | Git | Agile | GDB (Debugger)
- Software Engineering | Unix System Admin | CI/CD | JUnit | Device Drivers | Unit Testing | OOP | Agile | Operating System
- Troubleshooting | Distributed Systems | Firmware | Networking (TCP/UDP) | Communication Protocols (I2C, SPI, UART, IoT) | Docker | Collaborative

Experience

Software Engineer **UC Berkeley** *Berkeley, CA, USA* **10/2023 - 04/2024**

- Led in the designing and developing of UI applications for the end-user, increasing usability by 10 – 15% using the latest technologies of C++, Qt, and QTCreator.
- Implement scalable plugins back-end using Java and Javax and managed the UI design for those plugins.
- Developing LLSM GUI applications for multiple platforms, Mac and Linux.
- Created multiple innovative solutions for that tackle new problems on multiple projects.
- Hosted meetings and discussions on identifying application requirements, and software dependencies to workload balancing, software implementation, test, and configuring different metrics systems.
- Continuous Integration/Deployment pipeline integration, pull requests, code reviews, load/stress testing, unit/integration/e2e testing.

Education

Bachelor of Science **San Francisco State University** *San Francisco, CA* **01/2024 – 05/2026**

- Major in Computer Science

Projects

- **ENGINE3D:** Creator of a 3D Game Engine (C++, OpenGL). Link to Github showcasing the display of engine's capabilities **(011/2023)**
- **Native File Dialog**: As part of Engine3D, developed the Mac native file dialog using C++ and Cocoa.
- **Libhal-Soft:** Porting over different drivers such as lpc40, CAN, ADC, DAC for adding support to different arm chips. **(12/2023)**
- **NovaOS:** Creator, designer, and developer of an Operating System called NovaOS developed using x86 and C **(12/2023)**
- **Holographic Projection:** Lead, designer, and developer of a class group project developing a holographic projector using multiple sensors to give it capabilities to interacting with users **(03/2022)**
- **Log Script**: Assisted in collaboratively working with my professor, developing a bash script. Using the script for as an student anti-cheat detector that checks for anomalies when students submit their hands-on programming homework using Linux utility commands.

Clubs

- **SJSU Robotics:** Collaborated with a team and collaborated multiple sensors firmware for reliable data acquisition. Combining multiple data sources to enhance perception to enabling robust navigation by 20% in challenging environments.
- **Chinese Club**: President of the Chinese Club for 2 years. Showcasing leadership and planning of club events. Planned workshops in learning more about Chinese culture and the history.