





# Chu Yi Herr

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## Skills

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- C | C++ | Java | Python | Git | JSON | OpenGL | Vulkan | OpenCL | CUDA | Robotics | NoSQL | Agile | GDB | Unix Shell Scripting
- Software Engineering | Linux | Compilers Design | GPU Development | OOP | Kernel Development | CI/CD | Unit Testing | Agile | Operating System | Distributed Systems | Intel/AMD microprocessors
- Robotics | Firmware | Networking (TCP/UDP) | Communication Protocols (I2C, SPI, UART, IoT) | Docker Container

## Experience

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| <b>Software Engineer</b> | <b><u>UC Berkeley</u></b> | <i>Berkeley, CA, USA</i> | <b>10/2022 - 04/2024</b> |
|--------------------------|---------------------------|--------------------------|--------------------------|
- 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.
  - Developing LLSM GUI applications for multiple platforms, Mac and Linux.
  - Implement scalable plugins back-end using Java and Javax and managed the UI design for those plugins.
  - Initiated in creating multiple innovative solutions for that tackle new problems on multiple projects.
  - Hosted meetings discussing application requirements and software dependencies for workload balancing, software implementation, testing, and configuring metrics systems.
  - Continuous Integration/Deployment pipeline integration, pull requests, code reviews, load/stress testing, unit/integration/e2e testing.

## Education

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| <b>Bachelor of Science</b> | <b><u>San Francisco State University</u></b> | <i>San Francisco, CA</i> | <b>01/2024 – 05/2026</b> |
|----------------------------|--|--------------------------|--------------------------|
- Major in Computer Science
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|------------------------------|--|-------------------|----------------|
| <b>Associates of Science</b> | <b><u>Clovis Community College</u></b> | <i>Clovis, CA</i> | <b>05/2023</b> |
|------------------------------|--|-------------------|----------------|
- Major in Computer Science

## Projects

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- **A-Compiler:** Designed and implemented my own compiler and programming language called A-Compiler (C++, ARM64 asm). Here is the link to the [GitHub](#) (02/2024)
- **ENGINE3D:** Creator of a 3D Game Engine (C++, OpenGL). Here is the link to the project [GitHub](#) (02/2024)
- **MINI-ENGINE3D:** Developed a mini version of Engine3D using C++ and Vulkan. This is the link to the project, [GitHub](#) (02/2024)
- **Rocket-Game:** Using Engine3D to develop a rocket game. Link to the game made by Engine3D is [GitHub](#) (012/2023)
- **Libhal-Soft:** Porting over different drivers such as **lpc40, CAN, ADC, DAC** for adding support to different arm chips. Contributing to this Open-Source project. (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 a student anti-cheat detector that checks for anomalies when students submit their hands-on programming homework using Linux utility commands. (06/2023)

## Clubs

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- **SJSU Robotics:** Member on the Intelligence Systems team. Collaborating in calibrating firmware of the GPS, Compass, and Lidar sensors to help retrieve data for the autonomous rover navigation system using **Python**.