Miles Jennings

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EDUCATION

University of California Irvine <div align="right">Irvine, CA</div>
Bachelor of Science in Computer Engineering <div align="right">Sept. 2022 – June 2026</div>

Relevant Coursework: Organization of Digital Computers, Electronics I-II, Network Analysis I-II, Data Structures and Algorithms, Discrete/Continuous Time Signals

Organizations: HyperXite, FUSION, FASAE

EXPERIENCE

P2S Technology Intern <div align="right">Long Beach, California</div>
P2S Engineering <div align="right">June 2025 – Present</div>

- Assisted in the design and documentation of low-voltage and IT infrastructure systems for large scale buildings
- Supported engineers with **CAD** layout updates, wiring diagrams, and equipment schedules using AutoCAD and Revit
- Collaborated with multidisciplinary teams to coordinate technology system requirements with electrical and mechanical designs

HyperXite – SpaceX Hyperloop <div align="right">Irvine, California</div>
Control Systems Engineer <div align="right">Aug. 2025 – Present</div>

- Designed, tested, and optimized the Hyperloop pod's control system hardware using an STM32H753ZI microcontroller programmed in **C/C++**, interfacing with thermistors, time-of-flight sensors, and INA219 current sensors while evaluating components for performance and cost improvements over prior pod iterations
- Ensured hardware–software compatibility by defining system constraints and key telemetry parameters based on feedback from team surveys identifying the most critical data points to track in the GUI
- Implemented a Continuous Integration (CI) pipeline using GitHub Actions to streamline testing, version control, and code deployment across subteam

PROJECTS

MIPS & Pipeline Processor | *Verilog* <div align="right">Jan. 2025 – Feb. 2025</div>
- Designed and simulated a MIPS and pipelined processor using Verilog, ensuring correct instruction execution
- Implemented multiple MUX's, ALU-Controllers, and other combinational circuit components
- Developed and tested ALU controllers, multiplexers (MUXs), and other combinational logic components, optimizing data flow efficiency

Dictionary & Calculator Program | *Java, Swing* <div align="right">Sept. 2024 – Dec. 2024</div>
- Developed a dictionary application supporting import/export of text files for word and definition management
- Developed a feature-rich calculator with event-driven programming, handling factorial, logarithmic, and memory functions

Chess & Poker Program | *C, Linux, Git, SDL, GTK* <div align="right">April 2024 – June 2024</div>
- Developed a multiplayer Chess and Poker game in **C**, implementing server-to-client socket communication for real-time gameplay
- Utilized **Linux** for version control and coordination among team members.
- Designed an interactive GUI using SDL 1.2 (Chess) and GTK (Poker), enhancing user experience and engagement

TECHNICAL SKILLS

Languages: Python, C, Java, Verilog, RISC-V, MIPS Assembly, MATLAB, Bash (Linux Scripting)

Software/Tools: Revit, AutoCAD, Bluebeam, Arduino IDE, Vivado, LTSpice, Linux, Git, GitHub, STMCubeIDE, MobaXterm, Cadence

Hardware: Oscilloscope, Multimeter, Circuit Design & Analysis, Microcontrollers, ESP32, Embedded Systems, PCB Design, Arduino, Power Supplies