Jean Ayala

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PROFESSIONAL SUMMARY

U.S. Marine Corps Veteran and Computer Engineering student at Chapman University with experience in systems programming, digital logic design, Linux environments, and embedded systems development. Skilled in C/C++, Python, Verilog, and hardware/software integration through engineering coursework and projects. Seeking an Electrical/Embedded Engineering role focused on low-level systems, prototyping, and cross-functional engineering development.

EDUCATION

Chapman University

Bachelor of Computer Engineering — May 2026
Themed Inquiry: Leadership
Relevant Coursework: Digital Logic Design, Integrated Circuits, Data Structures, Computer Architecture, Systems Programming, Operating Systems, and Computer Networking

Irvine Valley College

Mathematics A.S. — May 2024
Physics A.S. — May 2024
Natural Sciences A.S — May 2024
Liberal Studies A.A. — May 2024

ENGINEERING PROJECTS

Multithreaded CPU Scheduling Simulator | C, POSIX Threads, Linux

• Developed a multithreaded CPU scheduling simulator implementing Priority Scheduling, Round Robin, and Completely Fair Scheduling algorithms.
• Utilized POSIX threads, semaphores, and synchronization primitives to coordinate scheduler and process execution.
• Generated performance metrics including waiting time, turnaround time, response time, and context switch analysis.

Networking & Systems Programming Labs | C, Python, Linux

• Developed TCP/UDP socket-based applications including multithreaded chat servers and ICMP ping utilities.
• Utilized Wireshark to analyze TCP, UDP, and DNS packet behavior and troubleshoot network communication.
• Built Linux-based client/server programs using sockets, synchronization, and system-level debugging tools.

Embedded & Digital Logic Projects | Verilog, Logisim, Cadence

• Designed and simulated digital circuits including adders, ALUs, counters, and combinational logic systems using Verilog and Logisim.
• Performed circuit simulation and analysis using Cadence tools and FreePDK45 environments.
• Applied digital design and hardware debugging concepts through FPGA and circuit analysis coursework.

WORK EXPERIENCE

IRVINE VALLEY COLLEGE VETERAN CENTER — **Irvine, CA**
VA Work-study — *July 2022 – May 2024*

- Managed and organized 250+ veteran records, maintaining both digital and physical databases to ensure accurate and efficient access to benefits information.
- Processed VA education benefit certifications, ensuring compliance with federal, state, and SOCCCD regulations.

- Assisted student veterans through phone, email, and in-person support, resolving questions related to benefits, enrollment, and campus resources.

UNITED STATES MARINE CORPS **Honolulu, HI**
Squad Leader, Gate Guard, and Military Police *Aug 2017 – Aug 2021*

- Led and supervised a 12-member squad**,** coordinating training, security operations, and mission readiness in high-tempo environments.
- Conducted combat profiling and tactical site exploitation training**,** improving team operational awareness and readiness.
- Provided security operations for multiple installations supporting 1,000+ personnel**,** coordinating with military police and command staff.
- Managed accountability, maintenance, and operational readiness of $1M+ in communications and tactical equipment in mission-critical environments.
- Coordinated troop movements and operations during field exercises using radio communications and tactical command procedures**.**

TECHNICAL SKILLS

Programming Languages:

- C, C++, Python, Verilog
- Systems programming and multithreading

Embedded & Hardware:

- Digital logic design
- Circuit simulation and testing
- Hardware/software integration
- PCB and schematic familiarity
- Arduino development and prototyping
- Familiarity with oscilloscopes and multimeters (DMMs)

Tools & Platforms:

- Linux/Unix
- Git/GitHub
- Cadence
- Logisim
- HSPICE simulation
- Wireshark