

Eric I Ramirez

Chico, CA

(530) 744-4588 • ericiramirez25@gmail.com

<https://github.com/eiramirez>

<https://www.linkedin.com/in/eric-i-ramirez>

<https://eiramirez.github.io/Website>

Objective

Aspiring Embedded Systems/Software Engineer seeking an internship to contribute to a collaborative team and support innovative solutions. Passionate about low-level programming and hardware-software integration. I aim to expand my expertise while helping drive impactful engineering projects.

Education

August 2023 – May 2026	BS in Computer Engineering	GPA: 3.3	<u>California State University</u> , Chico, CA
August 2021 – May 2023	BS in Computer Engineering	GPA: 3.56	<u>Shasta College</u> , Redding, CA

Relevant Experience

Feb 2025 - Mar 2025	Control System for DC Motor	<u>California State University</u> , Chico, CA
<ul style="list-style-type: none">Programmed SysTick PWM with interrupts to control a DC motor at 20%, 50%, and 80% speeds, ensuring precise speed.Optimized microcontroller frequency to 40 MHz and rewrote ISR, enabling real-time updates verified by logic analyzer tests.Eliminated manual delay handling, enhancing speed control accuracy and reducing overall testing time by 30%.		
Sep 2024 – Dec 2024	PCB Design Project	<u>California State University</u> , Chico, CA
<ul style="list-style-type: none">Designed a unified Arduino shield schematic in Autodesk (EAGLE) by consolidating multiple circuit sections into one design.Created a PCB layout within the shield template, placing components per the BOM and meeting board specifications.Integrated schematic sections (thermocouple, BCD converter, buzzer, pushbutton) into one design for an Arduino shield.		
Nov 2023 – Dec 2023	5-Bit Multiplier Schematic Project	<u>California State University</u> , Chico, CA
<ul style="list-style-type: none">Designed a 5-bit multiplier in LTSpice using a 5-stage carry-lookahead adder to reduce propagation delay.Developed and integrated a custom 5-level AND gate array to overcome LTSpice's bitwise input limitations.Integrated partial product generation with custom CLA, cutting propagation delay by 25% vs. ripple-carry designs.		
Nov 2023 – Dec 2023	DC Motor Engineering Project	<u>California State University</u> , Chico, CA
<ul style="list-style-type: none">Engineered a custom DC motor by upscaling a factory model by 350% using a 3D-printed shaft, commutator, and housing.Redesigned coil winding based on electric field to ensure electromagnet aligned sequentially with the magnet's polarities.Achieved continuous rotation at 3000 RPM through enhancing electrical contact to sustain efficient motor performance.		
April 2019 - current	Computer Assembly	Cottonwood/Chico, CA
<ul style="list-style-type: none">Built 10+ custom PC builds tailored to user budgets ranging from \$400 to \$2,600.Systematically selected compatible components and interpreted technical manuals.Troubleshoot BIOS, power, and hardware integration issues for optimal performance and efficiency.		

Skills and Activities

- **Programming** – Python, C, C++, Assembly, HTML, CSS, JavaScript, JSX
- **Applications** – UVision(KEIL), MATLAB, Simulink, LTSpice, Autodesk(EAGLE), Excel
- **Others** – Communication, Multitasking, Time Management, Bilingual (Spanish)

