

Alex Herman

Website: alexherman11.github.io | Email: 1wheelalex@gmail.com | LinkedIn: linkedin.com/in/alex-herman04

Education

California State Polytechnic University, San Luis Obispo

Bachelor of Science in Computer Engineering

- ★ **Expected Graduation:** June 2026
 - ★ **Class:** Junior
 - ★ **GPA:** 3.59
 - ★ **Relevant Coursework:** Capstone, Microcontrollers and Embedded Systems, Computer Design and Assembly Language, Data Structures, Digital Signals and Systems, Systems Programming
-

Technical Experience and Projects

Team Lead, Smart Motor Capstone Project |

Winter 2024 - Present

Technologies: C, KiCad, I2C, Notion, Technical Reports and Documentation, Research

- ★ Learned KiCad and designed the PCB schematic to directly integrate the RP2040 and motor controller.
- ★ Built fully functional closed loop PID control in C. Designed an auto-tuning function from the ground up for optimal motor response. Learned to solder components as small as 0402 by hand for drivetrain testing.
- ★ Tested and troubleshooted compatibility errors with the software and hardware, finding niche bugs.
- ★ Stayed on schedule to deliver quality code, while also managing team goals and progress updates.

Foot Mouse for Sally - Empower Club |

Fall 2024 - Present

Technologies: ArduinoIDE, Mentorship, CAD, Technical Diagramming, Presenting

- ★ Selected as hardware design technician for an accessible foot mouse project (5 engineers). Under client specification and project constraints, designed and prototyped an Arduino-based foot mouse. Created a functional prototype and generated wiring diagrams and assembly steps for open-sourced collaboration.
-

Leadership and Extracurricular Activities

D1 Ultimate Frisbee Team Captain |

Fall 2022 – Present

- ★ Achieved A-team placement as a freshman, demonstrating exceptional athletic and team skills.
- ★ Elected captain of B-Team, balancing leadership responsibilities with academic priorities.
- ★ Currently designing and hosting a website for team organization and communication.

TA for Field Botany: California Plant Diversity |

Spring 2025

- ★ Learned over 500 plant species across the state while also driving vans, ensuring student safety, and finding ways to inspire my peers, ultimately realizing that this is what matters.
- ★ Benefited from the incredible mentorship of Jenn Yost and Matt Ritter in both career and life advice.

Ocean Lifeguard – City of Santa Cruz Fire Department |

Summer 2021 – Present

Beach Lifeguard I, Junior Guard Instructor

- ★ Ensured beach safety through vigilant water monitoring, rescues, and proactive public engagement.
 - ★ Trained and mentored Junior Guard participants, fostering leadership and water safety skills among youth.
 - ★ Coordinated instructional activities and managed volunteer and staff schedules.
-

Programming Languages: C, SystemVerilog, Python, RISC-V Assembly, Java

Software Tools: LTSPICE, Fusion 360, Vivado, Matlab, Android Studio, STM32CubeIDE, KiCad

Languages: Spanish (Conversational)

Certifications: CPR and Title 22 First Aid, Cal Poly Emerging Leaders Certificate, Scuba Open Water

Interests: Cooking | Botany | Rock Climbing | 90s Hip Hop | Watercolor