Curriculum Vitae

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Introduction

I am a senior Electrical and Computer Engineering student at Oregon State University with hands-on experience in embedded systems, AI-driven software systems, and autonomous robotics. I currently lead an agentic systems engineering team at Quantiiv, where I architect intelligent data products at scale. My interests span hardware-software co-design, computer architecture, VLSI, and control systems. I am also a longtime FIRST Robotics mentor and volunteer.

Education

Oregon State University — Honors B.S. in Electrical and Computer Engineering Sep 2023 – Jun 2026
GPA: 3.93/4.00. Dean's Honors List all terms. Focus: computer architecture, embedded systems, VLSI.

Mountain View Senior High School — Honors Diploma Sep 2019 – Jun 2023
Valedictorian, Class of 2023. GPA: 4.55/4.00. FRC Team Captain & Mechanical/Programming Lead.

Professional Experience

Agentic Systems Engineering Team Lead — Quantiiv (Remote) Jun 2025 – Present
Leading development of AI-driven analytics products and agentic workflow systems. Responsible for technical direction, code review, and mentorship. Built the core agentic architecture including a custom Text2SQL agent and GraphRAG knowledge base.
Technologies: Python, FastAPI, LangChain, LangGraph, LangSmith, GraphRAG, PostgreSQL

Interactive Mapping & Web Development Tech — OSU Ag. Sciences Mar 2025 – Dec 2025
Geospatial data visualization and interactive web maps for the Cascade-Siskiyou National Monument.
Technologies: ArcGIS Pro, Google Earth Engine, R, JavaScript

Shift Manager — McDonald's, Bend, OR Jul 2021 – Jan 2025
Promoted through Crew Member, Crew Trainer, and Shift Manager over 3.5 years. Managed full restaurant operations and staff. SERV Safe certified.

Notable Projects

Electrostatic Strain Wave Motor (Senior Capstone) Sep 2025 – Present
Control system design for a novel electrostatic strain wave motor using HALVE actuators. Developing power electronics (USB-C PD input, DC-DC boost to 1 kV), ESP32-C6 firmware for three-phase PWM generation, and a web-based control interface. High-voltage H-bridge switching with SiC MOSFETs and optocoupler isolation.

Custom 4-Channel 16-Bit USB Oscilloscope Apr – Jun 2025
Team lead. GUI in Kotlin, Teensy 4.1 firmware in C++, custom PCB in Altium Designer.

USB-C Power Delivery Breadboard Supply Jan – Mar 2025
Breadboard PCB with two independent voltage rails from USB-C PD. No microcontroller needed.

Leadership & Volunteering

Team Mentor, FIRST Robotics — Team 753 Jul 2023 – Present
Remote mentorship on control theory and electrical systems. Volunteer at regional FRC events.

Honors

Dean's Honors List — Oregon State University, all terms (2023–present)
Valedictorian — Mountain View Senior High School, Class of 2023