

Dominic Alessi

dominicalessi05@gmail.com | 206-693-8156 | [linkedin/dominic-alessi](https://www.linkedin.com/in/dominic-alessi)

EDUCATION

Oregon State University

Honors B.S. in Electrical and Computer Engineering

GPA: 3.98

Tau Beta Pi, Engineering Honors Society Member

OSU Accelerated Master's Platform in Electrical and Computer Engineering Student

September 2023 – Present

Corvallis, OR

EXPERIENCE

Electrical Subteam Lead

OSU DAM Robotics Rover Team

September 2023 – Present

Corvallis, OR

- Trained and mentored new students with weekly meetings, presentations on design philosophy, Altium tutorials, and soldering practice.
- Designed a simple PCB for new students to practice soldering with.
- Currently collaborating with an interdisciplinary team to modernize the gimbal camera system.

Physics Learning Assistant

OSU College of Science, Physics Department

January 2025 – Present

Corvallis, OR

- Facilitated office hours and studios by answering student questions on homework and in-class assignments.
- Tutored students in areas ranging from kinematics and forces to electricity and magnetism.
- Fostered a culture of compassion by supporting students through a difficult subject.

Research Assistant

OSU College of Engineering, EECS Department

February 2024 – March 2025

Corvallis, OR

- Researched applications of the piezoelectric effect in the field of micro-electro-mechanical systems (MEMS)
- Simulated modified versions of an S-Drive piezoelectric actuator in COMSOL Multiphysics.
- Developed a PCB system for recording temperature and humidity data of a Nanoscribe GT2 Polymer Printer.

Office Assistant

OSU College of Engineering Dean's Office

September 2024 – December 2024

Corvallis, OR

RECENT ENGINEERING PROJECTS

AM Radio Transceiver PCB

June 2025 – September 2025

- Designed and implemented complete AM transceiver circuit featuring Wien-Bridge oscillator generating stable 1.6 MHz carrier frequency.
- Achieved reliable 20-meter transmission range through optimized impedance matching with minimal signal distortion.

Portable Oscilloscope

April 2025 – June 2025

- Effectively worked with teammates to design and fabricate custom oscilloscope achieving 16-bit ADC resolution and ± 15 V input range.
- Developed complete hardware solution including analog front-end circuitry, signal conditioning, and custom PCB layout optimized for 330 kHz sampling rate.
- Integrated mechanical design through 3D printed enclosure providing portable form factor while maintaining signal integrity and user accessibility.

TECHNICAL SKILLS

Languages: C/C++, MATLAB, PlatformIO, Java, Python, SystemVerilog

Engineering Softwares: Altium Designer, Autodesk Fusion, KiCad, COMSOL Multiphysics, ADS Keysight, LaTeX, LTspice, Quartus Prime

Softskills: Leadership, Teamwork, Cooperation, Communication, Empathy