

OLIVER BRAITSCH

Seattle, WA

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EDUCATION

- Bachelor of Science**, Oregon State University, Corvallis, Oregon Expected May 2026
- Bachelor of Science, Mechanical Engineering (Aerospace Option)
 - GPA 3.6
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ENGINEERING PROJECTS

- Active Roll Control System for Solid Rocket**, Senior Capstone - AIAA, Jan. 2026 - Jun. 2026
Oregon State University
- Designed and developed a servo-actuated trim tab system for active roll control of a solid-fuel rocket, integrated within a 0.125 in fin under strict geometric and aerodynamic constraints
 - Modeled and integrated mechanical components in Onshape and Siemens NX
 - Performed aerodynamic and control authority analysis, quantifying roll torque and validating sufficient control authority for expected flight disturbances
 - Conducted multi-criteria trade studies across 8+ design concepts, selecting trim tabs based on weighted evaluation of mass, reliability, and control authority

- Lunar Mission Rocket Design**, AAE 462 - Rocket Propulsion, Oregon State Jan. 2026 - Mar. 2026
University
- Designed a two-stage launch vehicle to transport a 50 kg payload from LEO to lunar orbit
 - Developed v budget, mass sizing and staging architecture using the Tsiolkovsky rocket equation
 - Performed trajectory analysis using vis-viva and patched conics, calculating transfer orbit parameters and validating LEO-to-lunar orbit mission feasibility
 - Evaluated LOX/RP-1 and NTO/MMH propellant combinations using NASA CEA, comparing Isp, combustion properties, and system performance

- Boeing 777X Aircraft Analysis**, AAE 411 - Aerospace Applications, Oregon Jan. 2026 - Mar. 2026
State University
- Conducted structural and aerodynamic analysis of Boeing 777X wing and tail, calculating wing area, MAC, and aerodynamic center deploying numerical methods
 - Analyzed static and dynamic stability characteristics using DATCOM, evaluating longitudinal and lateral stability parameters
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SKILLS

- **Software:** Siemens NX, AutoCAD, LaTeX, Onshape, Python, MATLAB, NASA CEA, DATCOM, openRocket, Bluebeam Revu, Microsoft Office, Google Workspace
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WORK EXPERIENCE

- Project Engineer Intern**, Valley Electric Company, Wenatchee, Washington Jun. 2025 - Sep. 2025

- Coordinated daily execution between field operations and engineering teams to support constructability, schedule, and QA/QC on a data center project.
- Reviewed electrical drawings, RFIs, and submittals leveraging Bluebeam Revu, ensuring compliance with project specifications and reducing coordination errors
- Executed field inspections and documentation reviews, facilitating safety compliance and QA/QC processes on an active construction site

Project Engineer Intern, Valley Electric Company, Seattle, Washington Jun. 2024 - Sep. 2024

- Collaborated with teams from 3+ sub-contractors to streamline project execution, resulting in on-time delivery of project milestones.
- Managed and monitored weekly project schedules for a city-wide public project, addressing potential delays to keep progress on track and meet all critical deadlines.
- Facilitated effective communication among a team of 20+ project engineers and managers, fostering collaboration, and leading to all project milestones being delivered on time.

Design Engineer Intern, Valley Electric Company, Seattle, Washington Jun. 2023 - Sep. 2023

- Detailed planning, design, and development of large-scale electrical construction projects, ensuring adherence to project specifications and timelines. Communicated findings to project managers and supervisors on a daily basis.
- Applied Revu Bluebeam, Microsoft Office, and CAD software to execute everyday objectives.

AWARDS AND ACKNOWLEDGEMENTS

Ken Schwartz Undergraduate of the Year Award & Scholarship

Phi Kappa Psi Alumni Association | 2024, 2025

Awarded to the member who best exemplifies leadership, academic excellence, integrity, and campus involvement

Academic Honor Roll (9 Terms)

Oregon State University | 2022-2026

VOLUNTEERING & LEADERSHIP

Independent Community Service, Park cleanups Oct. 2022 - Dec. 2025

- Completed community park cleanup initiatives, removing waste and maintaining public spaces across 5+ service events in Corvallis

President, Phi Kappa Psi OR Beta Feb. 2024 - Mar. 2025

- Led a 150-member organization, overseeing operations, strategic initiatives, and event planning. Supervised an executive council, resolved conflicts, and strengthened relationships with university and community leaders.

Treasurer, Phi Kappa Psi OR Beta Feb. 2023 - Mar. 2024

- Led and managed fraternity finances, including a \$1,000,000 Fiscal Budget, taxes, and account administration; reduced outstanding debt through structured repayment and budget controls.

Volunteer, Bloodwork Northwest / American Red Cross: Volunteer & donor Jan. 2019 - Dec. 2023

- Donated blood and supported local blood drive operations 3+ times, contributing to community health initiatives