

Ethan Shingleton

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EDUCATION

Oregon State University — B.S. Mechanical Engineering (Aerospace), Honors College Expected Aug 2026 GPA 3.80

Focus: glaciated drone technology and Propulsion/flight control systems

Technical University of Denmark — Study Abroad, Copenhagen, Denmark 2023–2024

Selected coursework: Observational X-Ray Astrophysics; Heat Transfer; Advanced Materials Technology; Thermodynamics.

Sprague High School 2018–2022 GPA 4.00

President of the engineering, rock-climbing club, and chemistry clubs.

ENGINEERING PROJECTS

Honors Thesis — Autonomous drone landing hardware for glaciated terrain

- Designed a hardware system to support landing-site assessment on glaciated terrain using spectroscopy and LiDAR.
- Flight tested hardware theory by flying over Mount Hood's alpine glaciers in Cessna 172.

Capstone — High Altitude Liquid Engine (HALE) rocket attitude control

- Manufacturing an active attitude-control system for Oregon's High Altitude Liquid Engine (HALE) rocket to reach a target altitude of 35000 feet.
- Working and collaborating with a team of over 50 people to consolidate avionics, propulsion, structures, and launch systems into a cohesive high-powered rocket.

RESEARCH & WORK EXPERIENCE

Oregon State Glaciology Research Lab — Research Assistant 2024–Present

- Quantified crevasse motion from time-series imagery; validated outputs and documented a repeatable processing workflow.
- Built and quality-checked 3D photogrammetry models (Metashape Pro); maintained organized analysis records for collaborators.

Howard S. Wright — General Contractor (Project/Field Support) 2025

- Reviewed drawings/specifications; supported field verification and coordination during remodel work (Portland Veterans Memorial Coliseum).
- Tracked issues/punch items and communicated status with onsite/offsite stakeholders to align work with requirements.

OSU Astrophysics Research Lab — Research Lab Assistant 2024–2025

- Screened experimental datasets for validity, flagged anomalies and questionable records for follow-up.

TECHNICAL SKILLS

CAD/Design: Autodesk Inventor; Siemens NX; Autodesk suite

Analysis/Simulation: COMSOL; MATLAB; Maple; Metashape Pro (photogrammetry); ANSYS

Programming/Data: Python; C++; RStudio; Excel/Google Sheets

Documentation: LaTeX/Overleaf; Bluebeam Revu