

Ian Spehar, E.I.

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Education

Oregon State University, Corvallis

M.S. in Mechanical Engineering, Robotics Minor

Graduation Date: June 2026

GPA: 3.66

B.S. in Mechanical Engineering, Spanish Minor

June 2024

University of Salamanca, Spain

Study Abroad, Spanish Language and Culture Studies

September 2023 - December 2023

Experience

Master's Thesis - Autonomous Robotic Additive Manufacturing

September 2024 - Present

OSU Plasma, Energy, and Space Propulsion Lab (Dr. Richard Wirz)

- Developed autonomous control and lab automation software for robotic laser directed energy deposition (LDED) systems
- Implemented automated data acquisition pipelines to generate high-quality, low-cost datasets with minimal human interaction
- Improved experimental precision, reduced operator error, and standardized data logging to support machine learning model development

OSU Mars Rover Team

September 2024 - January 2026

Software Subteam

- Developed a custom ROS 2/Gazebo simulation and autonomous navigation stack for a rover, implementing Bug-based obstacle avoidance, efficient waypoint exploration, and multi-sensor perception for competition R&D

Oregon State University - Information Technology Services

August 2021 - Present

IT Technician

- Provide first-line technical support to students and university staff
- Diagnose and resolve hardware, software, and account issues across campus systems
- Conduct personal training of 10+ new employees per term to support IT program development

Projects

RC Car Personal Project

- Built and programmed an autonomous RC car using a Raspberry Pi, with custom chassis, steering, and sensor integration. Capable of line following, object detection, and automated navigation

Skills

Programming: Python, ROS/ROS2, C++, Matlab, Linux, G-Code

Engineering Software: SolidWorks, COMSOL, EES, Excel

Certifications and Achievements

FE Exam - Mechanical: Passed exam to receive Engineering Intern license with OSBEELS (ID: 2439231)

Activities

OSU Tau Beta Pi Chapter (Engineering Honors Society)

May 2022 - Present