

Ian Spehar, EI

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Education

Oregon State University, Corvallis

M.S. in Mechanical Engineering, Robotics Minor

Grad Date: June 2026

B.S. in Mechanical Engineering, Spanish Minor

June 2024

GPA: 3.83

University of Salamanca, Spain

Spanish Language and Culture Studies

Fall 2023

Experience

OSU Mars Rover Team

September 2024 - Present

Software Engineer

- Develop autonomous navigation algorithms for the rover, enabling obstacle detection, path planning, and real-time decision-making
- Integrate ROS-based programs to coordinate sensor data, decision-making processes, and hardware actuation

Painting Robot

September 2024 - Present

- Developed software for a Kinova robot arm, "Pollock," to autonomously convert digital images into artistic brush strokes
- Created the core algorithm to analyze and translate image contours into sequenced brush stroke commands, using advanced pathing logic to replicate original images through painting

Automatic Rocket Tracker Team

January - July 2024

Team Lead

- Led the design and development of a fully functional automated antenna tracking system, designed to improve recovery procedures for the OSU High Altitude Rocket Team
- Engineered and implemented advanced Arduino control algorithm for optimized tracking automation

Projects

RC Car Personal Project

- Designed and built an RC car from scratch, utilizing a Raspberry Pi for control and automation
- Designed and manufactured the car's chassis and steering mechanism, creating a custom solution for precise control and durability

Skills

Programming: Python, ROS, C++, Linux, Matlab

Engineering Software: SolidWorks, COMSOL, EES, Excel

Certifications and Achievements

Engineering Intern (EI) - Passed Mechanical FE Exam, received certification from state board of Oregon

Activities

OSU Tau Beta Pi Chapter (Engineering Honors Society)

May 2022 - Present