Ian Spehar, EI

Ian.Spehar01@gmail.com | 541-231-4056 | Corvallis, OR | ianspehar99.github.io

Education

Oregon State University, Corvallis
M.S. in Mechanical Engineering, Robotics Minor   Grad Date: June 2026
GPA: 3.65

B.S. in Mechanical Engineering, Spanish Minor   June 2024

University of Salamanca, Spain
Study Abroad, 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 - December 2024
- Developed Python 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