MARSHALL SALTZ

HTTPS://LSALTZ.GITHUB.IO/

OBJECTIVE

Seeking an interdisciplinary engineering position in which I can utilize and expand my skill set

CONTACT

[REDACTED]

SKILLS

Electrical: Schematics, Electronics prototyping, Soldering

Mechanical: Fusion360, Power tools, Assembly, Hand tools, 3D Printing

Software: C++, Python, Ubuntu Linux, Simulations, Computer Vision, Robotics Programming, ROS2, C, OpenCV, PyBullet

OTHER EXPERIENCE AND ACHIEVEMENTS

Engineering Student Council
Oregon State University
March 2022 – May 2023

All-USA Academic Team Scholarship Nomination
Front Range Community College
2021

Computer Science Club President
Front Range Community College
August 2020-May 2021

EDUCATION

HONORS BACHELOR OF ELECTRICAL AND COMPUTER ENGINEERING
MINOR: COMPUTER SCIENCE
Oregon State University
September 2021-June 2025
Completed coursework in Differential Equations, Networks, Linear Algebra, Algorithms, Digital Logic, Operating Systems, and Circuit Analysis

EXPERIENCE

ROBOTICS LAB RESEARCHER
Oregon State University
January 2022-Current
Completing honors thesis project that uses an evolutionary algorithm to find the two-fingered gripper with optimal reachability. Uses inverse kinematics (Denavit-Hartenberg parameters) to obtain the reachable space which is verified in simulation.

AGAID INTERN
Oregon State University
June 2023-Aug 2023
Completed project using Python, OpenCV, and Blender to generate 3D models of trees from Azure Kinect RGB D footage by fitting Bezier curves to the branches and annotated images for training an image segmentation model.

SERVICE DESK TECHNICIAN
Oregon State University
Nov 2021-Current
In-person and remotely assisting the students and employees of OSU with troubleshooting technical problems in addition to imaging computers for the Oregon State Community.

RELEVANT PROJECTS

Follow-Me Robot Vehicle
Completed robotics project using Fusion360 to design a robotic vehicle that detects and tracks a person, adjusting its movements according to their distance. Uses OpenCV and a Jetson Nano.

Robotic Drawing Arm
Junior Design II team project involving a custom voltage regulator PCB, Python GUI interface, computer vision, 3D printing, and an Arduino to build, assemble, and control a robotic arm that can accept G-Code commands. Currently undergoing added functionality of image replication.