

Allison Li

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Education

OLIN COLLEGE OF ENGINEERING | Sept 2020 - Dec 2024

Bachelor of Science in Engineering with Robotics

Linear Controls, Computational Robotics, Dynamics, Statics, Differential Equations, Linear Algebra

Experience

FORMLABS - Systems Integration Engineer | Internship Summer 2023, Summer 2024 / Somerville, MA

- Worked on a cross-functional team developing firmware, integrated hardware systems, and control algorithms for next-generation 3D printers.
- Contributed to the development of the Form 4 by writing C++ firmware and supporting bring-up and calibration of prototypes
- Owned test planning, mechanical design, electrical and software integration, and Python analysis scripting for test benches to validate and de-risk motor and sensor systems
- Supported R&D teams in root-causing and solving issues during mechanical and print process testing

SPACEX - Development Test Engineer | Internship Summer 2022 / Hawthorne, CA

- Designed and fabricated test fixtures to perform development, qualification, and acceptance testing on product components.
- Performed structural analysis for identified failure modes on flight parts.
- Worked with data acquisition equipment and software.
- Developed on control systems software to operate test stands.
- Sustained communication with multiple stakeholder design teams on requirements and success criteria through test campaigns.

TESLA - Driver Unit Manufacturing Engineer | Internship Spring 2022 / Palo Alto & Fremont, CA

- Designed tooling for manufacturing line equipment.
 - Applied high-level manufacturing process design to support production line planning and development.
 - Designed and built test equipment and experiments to optimize manufacturing processes.
 - Interfaced with design teams to provide DFM feedback.
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Projects

Robot Object Manipulation Taxonomy | Amazon Robotics Senior Capstone Project

- Autonomous system to determine the most effective end effector to grasp an object
- Modeled robot arm and environment with MIT Drake simulation
- Wrote custom perception pipeline integrating classical computer vision and machine learning

Invisible Map | Research with Olin College Crowdsourcing and Machine Learning Lab

- Assistive iOS app using AR technology to assist the blind and visually impaired with indoor navigation
- Worked on front-end app UI & back-end graph optimization in Python (SLAM)
- Developed & deployed first beta test release to ~20 users in the BVI community

Autonomous Trail Robot | Final Project - Computational Robotics

- Retrofitted off-road robot with hardware system (Arduino, Raspberry Pi, onboard iPhone)
 - Integrated system including ROS2 nodes in Python and a custom iOS app to stream live data
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Skills

Software Development: Python, HTML/CSS, C++, Swift, Git, ROS2, Matlab

Hardware Development: Onshape, NX, Solidworks, electrical prototyping, rapid mechanical prototyping tools, machine shop tools