

# Landon Shumway

<https://www.linkedin.com/in/landon-shumway>

## EDUCATION

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### Brigham Young University

April 2025

Bachelor of Science: Mechanical Engineering (April 2023)

Provo, UT

Master of Science: Computer and Electrical Engineering (April 2025)

Minor: Computer Science, Mathematics

- GPA 4.0
- BYU Academic Scholarship Recipient
- Mechatronics Club

Relevant Coursework: Nonlinear Systems Theory, Multi-Agent Autonomy and Control, Math of Signals and Systems, Robotic Localization and Mapping, Control Systems, Dynamic Systems, Algorithm Design

## RELEVANT EXPERIENCE

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### MAGICC Lab – Brigham Young University

January 2021 – Present

Research Assistant

Provo, UT

- Generated time-synchronized, dynamically feasible B-spline trajectories for multi-agent interception scenarios
- Developed a custom, modular aerial simulation environment in Python for multi-agent cooperation scenarios
- Incorporated a flight control system for the landing protocol of a UAV for ocean surveillance
- Leveraged ROS/ROS2 environments to facilitate communication between sensor observations and control/estimation algorithms in both simulation and hardware implementations
- Coordinated weekly with lab members and supervisors from 3 universities to further research progress

### The Boeing Company

May 2023 – August 2023

Equipment and Tooling Engineer Intern

Auburn, WA

- Led a team of five engineering interns on a collaborative proof-of-concept robotics integration project
- Programmed a 6 DOF ABB robot to deburr various sheet metal parts to match manufacturing standards and prevent safety hazards for shop workers
- Presented a live demonstration of a robotic manufacturing process to 20+ stakeholders
- Integrated and tested a safety system for a full-sized robot cell on the factory floor

### SISU Cinema Robotics

May 2022 – August 2022

Robotics Systems Engineering Intern

Round Rock, TX

- Designed and showcased a mixed-reality Unreal Engine/Cinema Robot proof-of-concept for 16,000+ attendees at the CineGear expo in Los Angeles (<https://www.youtube.com/watch?v=uxY--SRINtA>)
- Architected and standardized an improved software regression testing process and trained a team of 11 software engineers on its use and maintenance
- Utilized Agile/Scrum and XP methodologies to develop software using PLC ladder logic, NSIS, and LabVIEW for cinematography robotics on a highly collaborative team of 10 software developers
- Engineered mechanical mounting solutions for robot-mounted cinema cameras with CAD and 3D printing
- Prototyped integration of high-end cinema camera synchronization with 6-axis industrial robotic arms
- Led continuous education training on interfacing cinema robots with Unreal Engine for 11 engineers

### CREATE Lab – Brigham Young University

August 2020 – December 2021

Research Assistant

Provo, UT

- Designed experiments to analyze sintering effects in additive manufacturing using a FLIR thermal camera
- Wrote and edited programs in MATLAB and G-code to control printer, calibrate cameras, and run prints
- Reported progress and goals weekly to supervisor to maintain accountability and meet organization goals

### HHI Corporation

May 2021 – August 2021

CAD Design and Operations Management Intern

Ogden, UT

- Created CAD designs of custom steel/aluminum structures according to client specifications (2-3/week)
- Communicated daily with clients over design parameters and necessary changes
- Drafted 10+ engineering drawings and fabrication instructions for manufactured products each week
- Managed 30+ workers to facilitate product movement through the fabrication shop floor

- Assembled multimillion-dollar aircraft stands to assess quality before shipping

**Provo Missionary Training Center**

July 2019 – April 2020

Spanish Teacher/Trainer

Provo, UT

- Coached 12 representatives monthly in foreign language proficiency and teaching skills to prepare them for service in foreign countries
- Facilitated productive classroom culture through clear communication and one-on-one relationships
- Collaborated with co-teacher to create 10 lesson plans per week and evaluated progress of representatives
- Studied teaching methods and received weekly training/feedback to improve foreign language teaching

**SKILLS/MISCELLANEOUS**

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- Proficiency in C++, Python, Java, MATLAB, Linux, CAD (specifically SolidWorks), G-code, LabVIEW, and Microsoft Office
- Experience with 3D printing (both industrial and personal)
- Spanish fluency (rated Advanced High on Oral Proficiency Interview)
- Student pilot (in process of gaining private pilot license)
- US Citizen