

ADRIANA HOLTZMAN

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EDUCATION

Carnegie Mellon University , Pittsburgh, PA	May 2027
Bachelor of Science in Electrical and Computer Engineering	GPA : 3.8/4.0
Additional Major in Robotics	

RELEVANT EXPERIENCE

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|---|------------------------|
| Draper, Undergraduate Systems Engineer , Cambridge, MA | Incoming |
| · Work on GN&C sensor integration, testing, and data analysis as a Summer 2025 Intern | |
| Micro Robotics Lab, Undergraduate Researcher , Pittsburgh, PA | May 2024 - August 2024 |
| · Lead project creating caudal fin actuators for autonomous fish-like robots, employing SolidWorks, Arduino, rapid prototyping, and electrical design to develop caudal fin actuator with controllable inertia-based turning capability | |
| · Devised safe, reusable test setup to isolate electronics above water tank and track fin location underwater | |
| · Quantified actuation control using Segmentation Tracking and MATLAB data visualization and presented project conclusions and next steps at end-of-summer lab meeting | |
| TechSpark Machine Shop, Student Technician , Pittsburgh, PA | May 2024 - Present |
| · Guided shop users to operate machines safely and assisted professional shop machinists in manufacturing parts | |
| · Instructed 16+ students as Teaching Assistant for manual machining courses (24-200, 24-203) | |
| · Tested new curriculum for 24-203 (offered beginning in Fall 2024) by machining a C-clamp with instructor | |

PROJECT EXPERIENCE

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| GPS Real Time Kinematics (RTK) Data Collection, CIA Buggy | January 2024 - Present |
| · Lead data collection and analysis for annual University Raceday 2025 (carbon fiber gravity racing) as Data Chair, utilizing high-precision GNSS data to advise driver lines, push team selection, and energy loss analysis | |
| · Trained team of 10+ people to understand, collect, and extract RTK position data and contribute to projects, including database development, processing pipeline improvements, firmware redesign, and PCB miniaturization | |
| · Redesigned and assembled physical RTK kit to improve performance and user friendliness during weekly Rolls | |
| CircumNav Route Planning, Space Robotics Development | January 2025 - Present |
| · Work to collaboratively develop a route planning program using A* and other pathfinding algorithms during Spring 2025 | |
| · To be integrated into new CircumNav lunar rover to avoid craters and travel around the moon within 1.5 days | |
| Analog Audio Synthesizer, Build18 Hardware Hackathon | October 2024 - January 2025 |
| · Manufactured analog synth with filter, echo, and oscillator functionalities for compatibility with instruments and mic inputs | |
| · Contributed soldering, circuit debugging, laser cutting, woodworking skills, and public speaking skills to team efforts | |
| · Presented product and live demonstration to team of 10+ corporate sponsors as 1 of 5 selected Innov18 teams | |

RELEVANT COURSEWORK

Principles of Imperative Computation	Signals & Systems	Structure & Design of Digital Systems
Space Robotics Development	Linear Algebra & Vector Calculus	Differential Equations

SKILLS AND INTERESTS

Software	SolidWorks, Arduino, AutoCAD, KiCad, Ansys Discovery, CorelDraw, Microsoft Office
Languages	C/C++, Python, MATLAB, SystemVerilog, Assembly, LaTeX, HTML, CSS
Machines	Mill, Lathe, CNC Mill, Waterjet, Laser Cutter, 3D Printer (FDM/SLA), Bandsaw
Interests	Sensing, Signal Processing, Controls, Embedded Systems, Software, Medical Robotics

ACTIVITIES AND HONORS

Carnegie Involvement Association (CIA Buggy) , Data Chair, Mechanic, Build	August 2023 - Present
Scotch'n'Soda , Actor, Co-Head Paint Implementer, Asst. Electrician	August 2023 - Present
College of Engineering Dean's List , (GPA 3.75 and above)	Fall 23, Spring 24