ADRIANA HOLTZMAN

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EDUCATION

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

RELEVANT EXPERIENCE

Draper, Undergraduate Systems Engineer, Cambridge, MA — May 2025 - August 2025
- 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

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

Analog Synthesizer, Build18 Hardware Hackathon — October 2024 - Present
- Collaborated to manufacture synth, contributing soldering, circuitry debugging, machining, and woodworking skills
- To be assembled and presented throughout first week of classes in January

Climbing Robot with Claw, Robot Building Practices — October 2024 - Present
- Designed and built teleoperated robot to be able to transfer 15 bean bags into cornhole hole within 5 minutes
- Constructed mechanism through rapid prototyping and machining to enable robot to climb over 4 inch obstacle

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, ROS, Gazebo, KiCad, Microsoft Office
Languages	C/C++, Python, MATLAB, System Verilog, Assembly, LaTeX, HTML
Machines	Mill, Lathe, CNC Mill, Waterjet, Laser Cutter, 3D Printer (FDM/SLA), Bandsaw
Interests	Sensing, Signal Processing, Controls, Embedded Systems, Medical Devices and 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) — All Semesters