

Education

Worcester Polytechnic Institute (WPI) | Worcester, MA

Expected Graduation May 2027

Robotics Engineering (B.S.)

GPA 4.00

Mechanical Engineering (Minor)

Related Coursework: Computer-Aided Design, Unified Robotics I, II, & III, Electrical and Computer Engineering, Static Systems, Stress Analysis, Controls Engineering, Systems Programming, Object Oriented Programming

Skills

Programming: C, C++, MATLAB, Java, Python, Racket, HTML,

Other Software: SolidWorks (Certified Associate), OnShape, MS Office, Arduino

Other Skills: 3D Printing, Experience with manufacturing machinery (lathe, drilling machine, bandsaw, etc.), Public Speaking, Soldering, Interpersonal Communication, Laser Cutting

Projects

1lb Plastic BattleBot

August 2025 – Present

- Used OnShape to create and design a composite combat robot with a vertical spinner to compete against other robots
- Optimized the size of the robot to maximize the thickness of the shell to protect all the internal components after impact
- 3D printed modular components for the robot, allowing easy swap out after each fight

Modular Multi Sensor Robot

March 2025 – May 2025

- Programmed a robot in C++, using low-level and high-level state machines and used sensor fusion to control different sensors, including cameras, line sensors, gyroscopes, IMUs, and an ultrasonic rangefinder
- Collaborated with other students using Git to create complimentary filters, motor PID, and encoder hysteresis
- Wired the robot using breadboards and troubleshooted any issues using oscilloscopes and multimeters

Parallel Manipulator Robot

January 2025 – March 2025

- Used SolidWorks to iteratively design, 3D print, and stress test the gears and links for a four-bar parallel manipulator, refining geometry to obtain reliable operation
- Used MATLAB and Arduinos to calculate, design, and program forward and inverse kinematics to precisely control robot position

Work Experience

Mechanical Engineering Intern | Unholtz Dickies Corporation | Wallingford, CT

May 2025 – August 2025

- Constructed sub-assemblies of power modules for large tower amplifiers allowing them to properly power large shaker tables
- Quality checked power modules by comparing output voltage to specifications using various meters and repaired any faulty hardware or short circuits, increasing voltage back to a normal level
- Performed soldering of small electrical components, wires, and connectors for daily production needs

Food Service Worker | Millpond Gatherings | Northford, CT

June 2024 – May 2025

- Communicated and collaborated with other staff to guarantee excellent customer service
- Set up tables and cleared used dishes efficiently and according to proper hygiene protocols

Karate Instructor | Baran's Kenpo Karate | Wallingford, CT

May 2021 – May 2025

- Adapted instruction based on student needs and strengths, creating a safe learning environment through rule enforcement and conflict resolution strategies
- Mentored new instructors regarding proper teaching techniques and classroom management
- Explained cultural aspects associated with karate including etiquette, language terms, ranks, titles, and proper self-defense methods

Leadership Experience

Rho Beta Pi Robotics Engineering Honor Society – Member

September 2025 – Present

WPI Combat Robotics – Member

August 2025 – Present

Tau Beta Pi Engineering Honor Society – Member

April 2025 – Present

Lambda Chi Alpha – Academics Chair

January 2025 – Present

WPI's First Robotics Team – Competition Team Mentor

August 2024 – December 2024