

Eli Branstetter

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Education

University of Cincinnati, College of Engineering and Applied Science

Master of Engineering in Robotics and Intelligent Autonomous Systems

3.83 GPA | Dec 2025

Bachelor of Science in Mechanical Engineering

4.00 GPA | May 2025

Work Experience

Process Development Engineering Co-op, Prism Plastics | a Marmon Company, Meadville, PA

May 2025–Present

- Managed packaging line refurbishment to improve cell performance and add a new part to line capabilities
- Designed, purchased, and implemented cell upgrade to reduce reject rate and operator labor, saving \$25k/year

Automation Engineering Intern, Marmon Holdings, Chicago, IL

May–Aug 2024

- Led investigation to integrate part marking into manufacturing process to fulfill customer needs and gain market advantage requiring samples and quotes from 7 vendors and creation of project bid specification
- Researched, tested, and selected reverse engineering software to improve quality and automation opportunities

Modsort Automation Engineering Co-op, Regal Rexnord, Cincinnati, OH

Aug–Dec 2023

- Designed and fabricated test stand to develop department knowledge of MDR motor life in simulated conditions
- Programmed testing and data analysis scripts in Studio 5000 Ladder Logic and VBA to reduce test time by 40%
- Researched and presented key patents to team to promote market analysis and innovation efforts

Modsort Automation Engineering Co-op, Regal Rexnord, Cincinnati, OH

Jan–April 2023

- Designed and ordered sheet metal parts for new conveyor attachments
- Performed and presented testing of Flexco Transfer Strips compatibility with the Modsort catalog

Mechanical Engineering Co-op, MiQ Partners, Cincinnati, OH

May–Aug 2022

- Designed and detailed an improved automated label printing station, involved onsite measurements, creation of 11 custom components, and production of manufacturing and assembly drawing package
- Improved acceptance rate of three Covid Test Kit robotic assembly machines, totaling 28 stations, from 97% to 99.9%, and run time percentage, 32% to 98%, using root cause analysis
- Collaborated with customer to complete Factory Acceptance Testing and created operation guide for factory use

Projects and Involvement

Senior Capstone, Team Lead, Low Water Usage Targeted Silicon Wafer Cleaning

Aug 2024–April 2025

- Led team to create a 2-axis gimbal to clean silicon wafers with controlled droplets to win 1st in Department Expo
- Programmed computer vision to locate particles and droplets with OpenCV and contributed to PID control

Theta Tau, Co-ed Professional Engineering Fraternity, Iota Gamma Chapter

Jan 2024–April 2025

- Led events for members to improve their professional skills and prepare for their job searches

Vice President of Membership, Tau Beta Pi, Engineering Honor Society

Aug 2024–April 2025

Gikingo Committee Chair, Engineers Without Borders-USA University of Cincinnati Chapter

Jan 2023–Dec 2024

- Managed 20-member committee to select and start the chapter's new water development and distribution project in Rwanda, projected to span 3-5 years with a budget exceeding \$25,000
- Planned international trip to collect data, meet stakeholders, and coordinate partnership agreements

College of Engineering and Applied Science Tribunal Innovation Challenge

May 2023–Jan 2024

- Designed and fabricated 2 axis turret to aim ultrasonic speaker and create a beam of sound for personal audio
- Presented business pitch and prototype to win 2nd place among 20 teams, for entrepreneurial opportunity

FIRST Tech Challenge, FIRST Robotics

Sept 2018–Feb 2021

- Designed custom 3D printed parts in Fusion 360 to enhance robot's function and won mechanical design awards
- Programmed robot to navigate the competition area and complete game objectives utilizing Android Studios

Eagle Scout Project, Scouting America

Aug 2018–July 2019

- Led 30 volunteers, for 270 hours of service, to construct a chimney swift tower providing habitat to the birds

Skills

SOLIDWORKS | Fusion 360 | Siemens NX | PTC Creo | AutoCAD | CAD | 3D Printing | Rapid Prototyping | Robotics | Test Design | Data Analysis | VBA Macro Programming | Python | LabVIEW | MATLAB | Ladder Logic | PLC | Computer Vision | OpenCV | Factory Talk HMI Design | Electrical Design | Technical Writing | Project Management | MS Office |