

Anderson Corum

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EDUCATION

University of Michigan

BSE, Mechanical Engineering

Coursework: Design & Manufacturing, Mechanical Behavior of Materials, Thermodynamics, Dynamics and Vibrations, Statics and Solid Mechanics, Circuits, Physics II, Differential Equations, Multivariable Calculus

Ann Arbor, MI

August 2023 - April 2027

EXPERIENCE

FREE Laboratory, University of Michigan

Fabric Bellow Arm & Actuators

Ann Arbor, MI

April 2025 - Present

- Developed bellow-folding actuators for use on pneumatic-powered robotic arms.
- Reduced the volume of in-house valves by over 25% to fit smaller dimensions while keeping original functionality.
- Designed buckle system to attach actuators to robot arm for modularity and repairability.

Michigan SAE Baja Racing, University of Michigan

3D-Printed Model of MBR34 Baja Car ("Rusty")

Ann Arbor, MI

November 2024 - January 2025

- Collaborated with a teammate to design a 3D-printed version of our SAE Baja car as a gift to sponsors.
- Utilized Siemens NX CAD to recreate a model suitable for 3D printing, reducing the number of elements by over 50%.
- Coordinated schedules, communicated effectively with management, and met project deadlines to ensure timely completion.

ME 250, University of Michigan

Design & Manufacturing I, The Space Race Design Project

Ann Arbor, MI

August 2024 - December 2024

- Gained hands-on experience drafting, designing, and manufacturing a robot to navigate varied terrains and collect and deposit resources, optimizing performance under predetermined functional requirements.
- Collaborated with a team of five to integrate various subsystems, fabricate, construct, and assemble parts, and effectively troubleshoot design issues while documenting project progress, taking feedback, and writing a bill of materials.
- Applied different strategies, technologies, and problem-solving techniques to enhance system efficiency, while managing project tasks and contributing to an overarching competition strategy.

C-Way Tool & Die, Inc.

Apprentice Machinist

Charlestown, IN

July 2024

- Gained foundational skills in machining, including operation of lathes, mills, and other shop equipment to assist in the completion of company projects.
- Developed an understanding of commercial processes, including workflow management, client interactions, and quality control in a production environment.

UPCOMING PROJECTS

Perot Jain TechLab - Climate Change, University of Michigan

Heirloom Carbon, Carbon Capture Methods Project

Ann Arbor, MI

August 2025 - December 2025

- Working with Heirloom Carbon to optimize methods for permanent CO2 removal using limestone creation.

ME 350, University of Michigan

Design & Manufacturing II, Plants vs. Zombies 3(50)

Ann Arbor, MI

August 2025 - December 2025

- Working with a team to design and manufacture an arm using controls and mechatronics.

SKILLS

Computer Skills: CAD (Siemens NX, Solidworks, Autodesk AutoCAD, 3D CAD, 2D CAD), MATLAB, C++, Scratch

Certifications: Microsoft Office Specialist Word, Excel, and PowerPoint

Trainings: Mill & Lathe machine trained, U-M Wilson Student Team Project Center trained

Soft Skills: Team Leadership, Collaboration, Communication, Teamwork, Adaptable, Organized, Problem-solving, Attention to detail