

# Devon Mignone

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## EDUCATION

**University of Michigan Undergraduate**, Ann Arbor  
**BSE Mechanical Engineering** GPA: 3.4

08/2022 – 05/2026

## RELEVANT EXPERIENCE

**Mechanical Engineering Intern**, Syensqo (Formally Solvay), Alpharetta, GA

05/2024– 08/2024

- Conducted a comprehensive validation study comparing injection molding pressure values with Moldflow simulations, creating detailed reports given directly to customers to guide material use and support design decisions.
- Collaborated with engineering teams to deliver high-quality engineering solutions in alignment with project specifications, creating a workflow used in an ongoing project, optimizing industry-standard predictive manufacturing software
- Assisted in the design, installation, and servicing of systems for accurate data collection and analysis, including wiring and calibrating a pressure transducer system.
- Supported and recorded data on the molding floor, contributing to effective project execution and ensuring optimal system performance.
- Presented weekly progress reports and final presentations to national teams and upper management, showcasing the value of findings, and aligning with company goals. Invited back to present findings to the branch on Europe.

**Civil and Environmental Engineering Research Intern**, Drexel University, Philadelphia, PA

06/2021– 08/2021

- Collaborated with PhD students on cutting-edge projects, including water desalination using superheated plasma and self-healing concrete research. Authored lab procedures, formulated new liquid samples/mediums daily, and managed three time-sensitive experiments.
- Conducted weekly independent experiments making concrete samples and performed stress tests using an electromechanical tensile testing machine. Contributed to a published research paper.

## PROJECTS AND EXTRACURRICULARS

**Personal Project Oral Appliance Pressure Washer**, Atlanta, GA

06/2024 – Current

- Designed a mechanism to rinse oral appliances on SOLIDWORKS, submitted for provisional patent approval, currently applying for additional university funding to create a prototype with realistic materials

**Robotics Mobility Platform Project**, Ann Arbor, MI

08/2023- 12/2023

- Designed, fabricated, and assembled a collaborative robot to compete in time restrictive competitions, mastering machine shop techniques, first principal analysis and empirical calculations, and support selections
- Proficient in Computer-Aided Design SOLIDWORKS, creating complete 3D models and assembly drawings of the robot components and 4 independent fabrication labs
- Developed and secure approval for 5+ detailed engineer drawings, ensuring precise and standardized manufacturing processes

**Sub-team Lead, FEAST Empathy in Point Clouds**, Ann Arbor, MI

01/2024- Current

- Revolutionize architectural design education by digitizing real-world structures for online environments, leveraging software like Unreal Engine, Faro Scene, and Blender to enhance visualization
- Work on sensitive cultural endeavors documenting artifacts found in Teotihuacan in a way that honors culture and memory

**Michigan Business Group**, Ann Arbor, MI

01/2024- Current

- Participate in two weekly meetings featuring consulting case studies, finance workshops, networking events, and guest speaker events. Work with a local Ann Arbor desert shop to create marketing and optimize organization and consumer targetting

## ADDITIONAL

**Server and Hostess, Black Powder Tavern**, Wayne, PA

02/2022 – 01/2024

- Predicted guest needs while ensuring timely and attentive service in a fast-paced environment

## LICENSES AND CERTIFICATIONS

1. MATLAB Onramp

01/2024

2. Data Collection and Processing with Python; Python Basics

08/2023

3. Machine shop Mill; Machine Shop Lathe

08/2023

## SKILLS

SolidWorks 3D CAD, Machine shop lathe, Machine shop mill, MATLAB, Python, C++, Unreal Engine, Faro Scene, Blender, Microsoft Office, Digital Fabrication, Adobe Photoshop, Leadership, Verbal and written communication

