Shyam Batchu

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EDUCATION

University of Michigan   **Ann Arbor, MI**
Bachelor of Science in Mechanical Engineering   *May 2026*
GPA: 3.95/4.00
Relevant Coursework: Analytical and Computational Dynamics, Vehicle Control Systems, Automatic Control

WORK EXPERIENCE

Boston Scientific Company   **Maple Grove, MN**
Manufacturing Engineering Intern   *May 2025 – August 2025*

- Generated $162k in projected annual cash savings through two data-driven process improvement projects
- Designed and executed experiments to validate new equipment, and authored two technical reports summarizing results to support the implementation of the new equipment on the production line
- Held line ownership of a tri-layer polymer extrusion line including hands-on troubleshooting with technicians
- Proposed and tested a novel solution for the Obsidio Aliquot delivery issue during the company's Innovation Challenge

University of Michigan Naval Engineering Education Consortium (NEEC)   **Ann Arbor, MI**
Undergraduate Researcher   *February 2024 – August 2025*

- Directed an experiment with industry-grade equipment to model various sources of continuous vibrations on a boat
- Created LabView and MATLAB programs for data acquisition and frequency-domain analysis to identify vibration patterns and develop an indirect monitoring system for critical boat machinery
- Delivered progress updates to research group, highlighting key developments to ensure clarity and team coordination

University of Michigan Mechanical Engineering Department   **Ann Arbor, MI**
Lead Instructional Aide – Dynamics and Vibrations   *August 2025 - Present*

- Creating homework solutions, evaluating assessments, and delivering course content to support 100+ students
- Lead group problem-solving sessions and hold weekly office hours to enhance student learning

PROJECT EXPERIENCE

Team Flow   **Ann Arbor, MI**
Engineering Lead   *September 2024 - Present*

- Leading a 10-member engineering team creating a low-cost, autonomous IV drip monitoring device to improve patient outcomes by reducing medical complications arising from IV disruptions and understaffing in under-resourced hospitals
- Directed on-site clinical testing of prototype at Komfo Anokye Teaching Hospital in Kumasi, Ghana including conducting interviews and usability tests with 100+ doctors and nurses to define and refine final product requirements
- Designing and manufacturing the housing for the monitoring device using SolidWorks and 3D printing, ensuring easy attachment to IV stand and drip chamber based on requirements based on feedback from nurses, doctors, and engineers
- Utilized breadboarding to build a functional proof-of-concept prototype that demonstrated concept viability

M-Fly   **Ann Arbor, MI**
Structures Engineer   *September 2024 – May 2025*

- Designed an autonomous aircraft using Siemens NX to build an aircraft that meets size constraints and maximizes speed in the Student Unmanned Aerial Systems
- Mentored students through individualized guidance, education sessions, and creating tutorials to enhance the technical ability of new members by developing their computer aided design skills and promoting team collaboration
- Collaborated with Aerodynamics Subteam to optimize aircraft model through FEA analysis of the aircraft

University of Michigan Design and Manufacturing   **Ann Arbor, MI**
Team Lead   *August 2024 – December 2024*

- Managed the planning, designing, and manufacturing of a 10" x 11" x 11" remote-controlled robot with specific functional requirements, ensuring it is capable of completing multiple tasks within a 16-week timeline
- Designed a 60+ part robot using SolidWorks, applying GD&T to create parts that are manufacturable

ADDITIONAL

Mechanical Engineering Skills: SolidWorks, Siemens NX/Teamcenter, 3D printing, Mill, Lathe, QGIS, GD&T
Programming: MATLAB, LabVIEW, Python, C++
Fun Fact: I love board games and my favorite is currently Arcs