

Lukas Mateju

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EDUCATION

Bachelor of Science in Industrial & Operations Engineering

University of Michigan

Ann Arbor, MI

August 2023 — Present

- **GPA:** 3.2/4.0 | Minor in Computer Science, International Minor for Engineers
- **Relevant Courses:** Probability and Statistics for Engineers, Operations Engineering and Analytics, Optimization Methods, Data Structures and Algorithm Programming, Data Analytics, Markov Processes, Statistics and AI
- Completed Engineering Study Abroad Program at Nebrija University (*Madrid, Spain* | May 2024 — July 2024)

WORK EXPERIENCE

Automation Engineering Intern

Los Alamos National Laboratory

Los Alamos, NM

June 2025 — Present

- Spearheaded design and fabrication of a modular purification panel to streamline hot cell isotope workflows, boosting consistency, safety, and operator ergonomics under strict spatial, material, and radiation constraints
- Integrated necessary chemical hardware into panel design with custom 3D-printed clips that allowed for reproducibility and cheap manufacturing for each isotope separation process, decreasing production costs by 32%
- Developed PLC programs for automation hardware that helped with isotope processing and activity detection, reducing the need for manual operation and improving processing times by 18%

Industrial Engineering Intern

Swoboda Technologies Inc.

Kentwood, MI

June 2023 — December 2023

- Designed and optimized autonomous production lines for high-profile clients, including Tesla, GHSP, GM, and BOSCH, utilizing CAD modeling to develop customized, efficient manufacturing systems that improved reliability and performance
- Aided production line optimization efforts by streamlining workflows, reducing downtime, and enhancing overall system productivity through data-driven analysis and cross-functional collaboration
- Conducted time and motion studies on autonomous production lines to identify inefficiencies, optimize SOP's, and improve workstation layouts, reducing bottlenecks and increasing productivity, reducing cycle times by 15 seconds per part

LEADERSHIP/PROJECT EXPERIENCE

President

Michigan Czech Student Association

Ann Arbor, MI

August 2023 — Present

- Revitalized club presence by organizing cultural mixers, language meetups, and holiday events to foster community and help Czech exchange students feel welcomed and supported on campus
- Increased membership by 20% over the course of 6 months along with improving campus visibility by launching targeted outreach campaigns, strengthening partnerships with international programs, and expanding social media engagement

Outfitting Coordinator

Michigan Human Powered Submarine

Ann Arbor, MI

August 2024 — Present

- Collaborated on submarine design, manufacturing, and outfitting of critical submarine components, ensuring structural integrity and ergonomic configurations to enhance pilot comfort, maneuverability, and safety during underwater operations
- Assisted with underwater testing and performance evaluations, executing precise maneuver coordination using hand signals and troubleshooting mechanical or visibility challenges in real-time to refine the submarine's control systems and reliability

Project Manager: *Stumble*

Michigan Build & Launch

Ann Arbor, MI

January 2024 — February 2025

- Led and managed a multi-disciplinary team of 6 students in developing a full-stack social media platform for students, gaining expertise in front-end and back-end web development using React, JavaScript, Next.js, Expo, and Neon Console
- Directed the full project lifecycle from concept to deployment, honing project management skills by prioritizing feature development, coordinating tasks, and ensuring seamless integration of UMich API and advanced chat functionality

Mentor/Coach

Robodawgs Elementary School Robotics Program

Grandville, MI

August 2021 — June 2023

- Mentored elementary students in robotics, teaching engineering concepts and block-based coding while developing structured lesson plans, hands-on activities, and mini-lessons to strengthen problem-solving and technical skills
- Guided teams in coding efficiency, robot design, and strategy development, along with collaborating with parent coaches to foster teamwork, critical thinking, and overall program success to help prepare teams for competitions

ADDITIONAL INFORMATION

LANGUAGES: Czech (*Full Professional Proficiency*), Spanish (*Limited Working Proficiency*)

TECHNICAL SKILLS: C++, Python, SQL, Java, React, CSS, HTML, MATLAB, Microsoft Suite, CAD (*Solidworks, Inventor, Onshape, Fusion 360, AutoCAD*), Figma, Canva, Machine Learning, PLC Programming

INTERESTS: Triathlons, Skiing, Backpacking, Rock Climbing, Collecting Records, Traveling, 3D Printing, Film, Battle Bots