

Yehansa Dissanayake

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EDUCATION

University of Michigan

Bachelor of Engineering in Robotics, Minor in Philosophy

Ann Arbor, MI

Aug. 2023 – May 2027

TECHNICAL SKILLS

MATLAB, Python, C++, Data Analysis — CAD (Fusion 360, Onshape, SolidWorks), 3D printing — Process Optimization, Prototyping — Microsoft Excel and PowerPoint, Excel VBA — IBM Rational DOORS, IQVIA SmartSolve, IBM Rational Clearquest

EXPERIENCE

Systems Engineering Intern

June 2026 – August 2026

Fresenius Kabi MedTech Division

Lake Zurich, IL

- Led the evaluation of complex fluid-control mechanisms for a new operational protocol on a flagship cell and gene therapy platform; identified safe-state configurations to prevent free-flow or contamination and protect cell integrity, presenting recommendations in a cross-functional engineering design review
- Assisted with the resolution of field anomalies and customer requests through IBM Clearquest to improve overall reliability, accuracy, and performance of the system
- Executed 30+ integration and verification tests, actively analyzing system logs to troubleshoot software anomalies and hardware equipment alarms
- Managed system requirements in IBM DOORS and efficiently routed 7 controlled engineering documents through regulated IQVIA SmartSolve Quality Management Software workflows

Surgical Pencil MDP Team Member

January 2026 – Present

University of Michigan in collaboration with Stryker

Ann Arbor, MI

- Collaborate on a multidisciplinary team to design and develop improvements to a surgical smoke evacuator system for clinical use
- Apply user-centered design principles to iterate on concepts based on requirements and constraints
- Prototype, test, and evaluate design concepts to improve usability and performance

Northwestern Memorial Hospital Supply Chain Intern

May 2025 – August 2025

NMH Operating Room and Performance Team

Chicago, IL

- Resolved technical issues in the MDI template and developed a Key Performance Indicator (KPI) chart generator, improving usability and efficiency in KPI tracking for hundreds of employees
- Developed and implemented an inventory tracking system for an overstock space, visibly reducing waste
- Led cross-functional projects to improve surgical supply chain efficiency and streamline operating room team workflows

Tikkun Olam Makers President/Design Team Lead

November 2023 – April 2025

University of Michigan Fellow

Ann Arbor, MI

- Led a multidisciplinary team to design assistive technologies for users with disabilities
- Conducted user research and needs assessments to create user-centered solutions from concept to product

Undergraduate Research Fellow

September 2023 – August 2024

University of Michigan

Ann Arbor, MI

- Designed and 3D-printed tungsten-filled PETG components for radiation shielding experiments on seven radioactive sources, generating data applicable to future medical radiation shielding devices.
- Collected and analyzed gamma spectroscopy data, generating informative visualizations using MATLAB

ACADEMIC COURSES

Robotics Coursework and Projects (ROB 311/ROB 320)

August 2025 – December 2025

- Designed, fabricated, and programmed a functional "ball bot" prototype using CAD, rapid prototyping, and feedback control (PID) to ensure precise movement.
- Developed embedded software (Arduino, MATLAB, Python) to control hardware components and manage real-time computation using multiprocessing, multithreading, and interprocess communication
- Utilized Robot Operating System (ROS) workflows, utilizing publish-subscribe messaging, forward/inverse kinematics, and advanced motion planning for robotic applications