

Sharavanan Mathivanan

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EDUCATION

Western University

Bachelor of Engineering Science, Mechatronics and AI Systems Engineering

London, ON

Expected Apr 2029

EXPERIENCE

CV and AI Application Intern

May 2025 – Aug 2025

MAANTT Global Services

- Developed an AI proctoring engine with object detection, pose estimation, audio analysis, and multi-person tracking using Python, TensorFlow, and MediaPipe.
- Achieved 90% detection accuracy and scaled system to monitor 50+ candidates per session.
- Automated proctoring workflow and improved system reliability through collaboration with course administrators.

Robot Designer and Trainer

Mar 2024 – Aug 2024

MEBOT Robotics

- Designed and built educational robots; created training curriculum for students aged 8–15.
- Delivered product demos to industry and academic clients, showcasing technical and communication skills.
- Applied project management and programming to lead hands-on learning sessions.

PROJECTS

Autonomous Bus Prototype | *Arduino, Ultrasonic, IR, Color Detection*

- Built an autonomous bus with IR-based line following and ultrasonic station detection.
- Implemented color-based traffic signal recognition, obstacle avoidance, and timed docking for passenger boarding.

Weather Collector | *CyberPi, IoT, Voice Commands, AI*

- Built a weather data logger with real-time display and voice command functionality.
- Enabled city-specific weather queries and outfit suggestions based on climate conditions.

Eye-Tracking Mouse | *Python, MediaPipe, PyAutoGUI*

[GitHub](#)

- Developed a blink-controlled mouse for hands-free navigation using facial landmark detection.
- Achieved smooth cursor control with less than 100ms latency on real-time video feed.

RT-DETR Object Detector | *PyTorch, Computer Vision*

[GitHub](#)

- Integrated RT-DETR for real-time object detection on live video and static images.
- Optimized inference speed and automated output storage pipeline.

Interactive Light Therapy Tree (Course Project) | *Arduino, 3D Printing*

[GitHub](#)

- Engineered a wellness lamp to alleviate Seasonal Affective Disorder (SAD) using RGB LEDs and light therapy modes.
- Integrated LCD timer, manual brightness control, and speaker alerts.

CERTIFICATIONS

- CSWA (Certified SolidWorks Associate) – Dassault Systèmes (2025)
- Robot Localization with Python and Particle Filters - Coursera (2025)
- Machine Learning Image Classifier - Coursera (2025)
- MATLAB Onramp – MathWorks (2024)

TECHNICAL SKILLS

Languages: Java, Python, C/C++, JavaScript, HTML/CSS

Frameworks: TensorFlow, MediaPipe, PyTorch, Arduino Framework

Developer Tools: Git, Docker, VS Code, IntelliJ, Eclipse