

Joshua Lobe

 Joshua.lobe@gmail.com

 519-5799509

 Personal Site

Education

Mechatronics Engineering

University of Waterloo

09/2022 - Present | Waterloo, Canada

Relevant classes

- Microprocessor Systems and Interfacing
- Actuators and Power Electronics
- Sensors and Instrumentation

Design Teams

BAJA SAE Interim Electrical Lead

Lead team of 8 people, designing electrical safety system for the vehicle, and utilizing CAN developed hall effect based rpm sensors, strain monitoring, and automatic differential transitioning.

WARG Electrical Team

Contributed to the Waterloo Aerial Robotics Group projects, doing board design, validation, and assembly.

WaterLoop Electrical Team

Worked on control systems and electrical design for competition mini Hyperloop pod.

Projects

MycroFleet

Project at Mycro Harvest

Mushroom Block Characterizer

Project at Mycro Harvest

Computer Vision Calibration Station

Project at Mycronics

Sonos Gesture Controller

Gesture based controller for sonos speakers in my kitchen

Languages

C++ • C • Python • VHDL • MATLAB • SQL

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Profile

Passionate about advancing robotics innovation, I bring a strong foundation in electrical, mechanical, and software design. I thrive in both collaborative environments and independent work, leveraging communication and teamwork skills to deliver impactful solutions in cross functional teams. Proficient in industry-standard tools such as SolidWorks, OnShape, Ansys, Altium, and KiCad.

Professional Experience

Geotab Inc.

Vehicle Systems Engineering Intern

05/2025 - 12/2025 | Waterloo, Canada

- Reverse engineered OEM CAN communication protocols to find proprietary vehicle data.
- Collaborated with firmware engineers to troubleshoot and resolve hardware-software integration issues.
- Analyzed CAN traffic, extracting diagnostic data and validating signals for 13 vehicle platforms.

Mycro Harvest Inc.

Mechatronic Product Engineering Intern

09/2024 - 12/2024 | Kitchener, Canada

- Developed and tested firmware and APIs for embedded systems.
- Designed and assembled custom mechatronic systems, including automated 3D scanner and environment control system for vertical farm.
- Implemented automated controls for reliable data collection and environmental management in vertical farm.
- Collaborated with cross-functional teams integrating hardware and software solutions, ensuring seamless communication and operation between embedded systems and mechatronic components in complex automation projects.

Mycionics Inc.

Mechatronics Intern

01/2024 - 04/2024 | Putnam, Canada

- Developed internal testing and commissioning tools for state-of-the-art production setting.
- Worked closely with mechanical, electrical, and software teams to ensure seamless integration.
- Independently resolved issues, ensuring product sustainability through comprehensive documentation.

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