# Joshua Lobe

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## **ℰ** Education

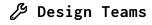
### Mechatronics Engineering

University of Waterloo

09/2022 - Present | Waterloo, Canada

Relevant classes

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



### BAJA SAE Interim Electrical Lead

Lead team of 8 people, designing electrical safety system for the vehicle, and began developing hall effect based rpm sensors, utilizing CAN and machine learning to optimize differential transmition state.

## WARG Electrical Team

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

### WaterLoop Electrical Team

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

## ం**%** Projects

#### MvcroFleet

Project at Mycro Harvest

## Mushroom Block Characterizer

Project at Mycro Harvest

## **Computer Vision Calibration Station**

Project at Mycionics

### MacroPad Keyboard

Personal Project based on an RP2040 microcontroller

## Languages

C++ • C • Python • VHDL • KRL • MATLAB

## ₽rofile

Passionate about advanciung 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. Profficient in industry-standard tools such as SolidWorks, OnShape, Ansys, Altium, and KiCad.

# 🖶 Professional Experience

### 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.

### Silver Lake Camp

Kitchen Manager

05/2023 - 08/2023 | Sauble Beach, Canada

- Led a team of 3-5 kitchen staff, fostering a positive, inclusive environment and developing leadership and communication skills through effective task delegation and support.
- Managed weekly food orders and shipments, handling over 3000 pounds of food.
- Maintained a 100% pass rate for public health and Ontario Camps Association health and safety inspections.