

EDUCATION

Bachelors of Computer Engineering

McMaster University

09/2017 - 04/2021

Courses

- Microprocessors
- Circuits and Systems: Oscilloscope, Function generator, PSpice, etc.
- Object Oriented Programming in C
- Digital Logic Design: UART, PS/2
- Control Systems

EXPERIENCE

Embedded Software Engineering Internship

L3Harris Wescam

06/2020 - 08/2021

Specializes in military grade cameras for air, land and sea vehicles

Achievements/Tasks

- DevOps: automated Systems Requirement Specifications document to ease the manual labor when creating new orders using PYTHON
- Created an autonomous blocking system for JIRA tickets using PYTHON and JSON
- Implemented design logic on 3 different types of user controllers using C LANGUAGE
- TESTED and FIXED various pieces of code/logic on company assets to identify bugs, error, and possible improvements
- Demonstrated excellent COMMUNICATION when working on a project with multiple teams; Project team, Controller team, Systems department, and more
- Learned and showcased programming professionalism by coding as specified, as well as creating accurate documentation for internal and external purposes (customers)

Co-Founder & Operations Director

McMaster Hyperloop Team

01/2019 - 01/2021

Achievements/Tasks

- Overseeing all engineering operations to lead a team of 60 students to develop a prototype pod
- Guiding each sub-team to write an effective report for the technology implemented in the pod
- Creating proof of concept electrical devices for verification
- Responsible for establishing communication between MCUs using I2C

SKILLS

C/ C++

Java

Python

JSON

OpenCV

Linux

OOP

HTML

Raspberry Pi

Arduino

UART

I2C

Soldering

Quartus

CAN Communication

Microsoft Office

Outlook

Agile Framework

JIRA

Jenkins

Github

Git version control

Docker

VIM

Confluence

Bitbucket

PROJECTS

L A S E R for Hack The North (Sept 2019)

- An award winning artistic robot built for photographers to automate Light Painting
- Designed an edge detection program which imports any image and finds a general outline as well as important features.
- Developed an interface between motorised laser and DSLR Nikon D3400 camera for smart setting management.

Accelerometer Data Acquisition (May 2019)

- Successful conversion of Analog to Digital signals from Accelerometer to Esduino Xstream Microprocessor
- Established USB serial communication between the microprocessor and Matlab
- Proficiently used Assembly, C and Matlab together to build this system

Delta Draw for DeltaHacks V (Jan 2019)

- A mechanized artist robot that draws any imported image onto a whiteboard using a marking in under 40 mins
- Used FLASK for testing and developing a local server
- Designed a local tunneling system through NGROK for file transfer
- Tested the viability of a piece of code used to extract etch-a-sketch coordinates through Image Processing

ACHIEVEMENTS

Winner of Hack The North (Sept 2019)

Awarded at Waterloo University's annual hackathon against 400+ teams

3rd Place Winner of DeltaHacks V (Jan 2019)

Awarded at McMaster University's annual hackathon against 160+ teams

Innovation Award: DeltaHacks V (Jan 2019)

Won one of two most innovative product