

# **SUMMARY OF QUALIFACTIONS**

- Third year mechatronics engineering student with practical experience developing hardware and software
- Experience developing back-end systems using AWS products

## **EDUCATION**

# B. Eng. Sc. Mechatronic Systems Engineering | University of Western Ontario

2015- (expected) 2019

Deans Honour List - 3.90/4.00 GPA

### WORK EXPERIENCE

### Software Developer Intern | London Hydro

### **May 2017 – September 2017**

- Worked on a pilot project that aims to shift residential energy consumption patterns to off peak times by implementing home automation systems and consumer-facing applications
- Contributed to development of a back-end system using AWS API Gateway, Lambda and DynamoDB
- Wrote test scripts in Python to test APIs, devices and back-end systems
- Acted as communications lead with hardware supplier
- Developed a custom Amazon Alexa skill to return customers energy usage and spending data

#### Project Management | TF Warren Group – Blastech

**June 2016 – September 2016** 

- Tracked projects through completion for Canada's largest industrial coating applicator
- Maintained a database of projects, updated customers on project status

#### **PROJECTS**

## **Face Tracking Quadcopter**

June 2016 - Present

- Built a quadcopter that follows human faces using an Arduino for flight controls and a Raspberry Pi for image processing
- Used OpenCV to implement haar-cascade classifier and kernel algorithms to detect and track faces
- Developed as a personal project using a combination of off-the-shelf components and 3D printed parts

#### **Mechatronics Design Project Robot**

March 2016 – April 2016

- Designed and built a robot that retrieved a cube off a wall and placed it under a signal-emitting pyramid
- Final prototype composed of four ultrasonic sensors, five servo motors and a hall-effect sensor

## **SKILLS**

#### Software

Python, C++, Node.js, AWS, MySQL, HTML/CSS/Javascript, OpenCV

#### **Hardware**

SolidWorks (CSWA certified), Autodesk EAGLE, rapid prototyping, soldering