# **Jason Baik**

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## Education

McMaster University | Expected Graduation: May 2028 **Electrical Engineering** 

## **Project Experience**

#### **Bus Time Display**

- Designed and developed a Python web scraper leveraging Selenium and PySerial to automate the extraction of real-time • bus schedule data from Google Maps. The process involved configuring browser automation and handling dynamic web content.
- Processed and formatted the extracted schedule data in Python to ensure compatibility with an Arduino microcontroller, utilizing serial communication protocols to transfer the information seamlessly between the software and hardware.
- Programmed the Arduino to control a crystal LCD display module, implementing logic to dynamically update and present • bus arrival times. This demonstrated advanced skills in Python development, hardware integration, and real-time data visualization for practical applications.

#### **Blind Opener**

- Developed an automated blind opener controlled via remote, enhancing home automation and convenience.
- Programmed the system using C++ on an Arduino, enabling interaction between an IR sensor and the remote control for seamless operation.
- Designed the electrical system to interface the Arduino with motorized blinds, ensuring smooth and responsive control over opening and closing mechanisms.
- Successfully integrated hardware and software components, allowing the blinds to operate reliably based on user input from the remote.

#### **Rear-View Camera**

- Led the development and installation of a rearview camera system, increasing the client's field of view from 90° to 360° for enhanced mobility and safety.
- Selected and integrated a wide-angle HD camera with a display, allowing the client to monitor surroundings in real-time with less than 1-second latency.
- Designed an adjustable camera mount using Autodesk Inventor, allowing flexible attachment to various surfaces for optimal positioning and user convenience.

### **Recycling Robot**

- Designed and implemented a system using a linear actuator for an automated guided vehicle (AGV) to dispense recyclables • efficiently.
- Created a detailed mechanical assembly on Autodesk Inventor, ensuring precise integration of components for seamless interaction between the actuator and AGV, enabling smooth and reliable operation
- Focused on key performance indicators (KPIs), including the volume of recyclables moved by the actuator and operational success rate, achieving a 100% success rate in all test scenarios.

## Experience

### **Staples**

Technical Sales Associate

- Provided technical assistance to customers, offering guidance on the use of computers, printers, and other office technology.
- Advised customers on electrical components and sold relevant tech products, ensuring they selected the right tools for their needs.
- Supported the sales team by identifying customer needs and recommending appropriate tech solutions, contributing to overall store sales goals.

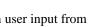
## Skills

Project Management: Microsoft Suite CAD: Autodesk Inventor Robotics: Arduino, Quanser Labs Software: Python, Matlab, Simulink, C, C++, HTML, CSS, PSpice,

## **Richmond Hill, ON**

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*June* 2022 – *May* 2023



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