Ming Rui Zhang

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EDUCATION

McGill University, Montreal Quebec Sep. 2014 – May.2018
-B.E. in Electrical Engineering
-GPA: 3.56/4.00
-Courses: Operating System (c), Data Structure & Algorithms (C++), Microprocessor (C)

SKILLS

Programming Languages: C++, C, Embedded C, MATLAB, Java, html, CSS, JavaScript
Tools: Keil, Linux, OrCAD, Eclipse, Arduino, Arm Cortex

WORK EXPERIENCE

MAR. – AUG. 2017 | **Automation Developer Intern at E-Innovation Inc., Montreal**
Electrochemistry based company making size-controlled electrodes, flow systems, sensors, spectroscopy

- Cooperated with a Mechanical Engineering student to automate the sealing and taping progress of making a new type of electrode
- Designed a system based on 3D printed parts and circuits controlled by certain logic uploaded in the Arduino Uno logic board
- Wrote Arduino (C like) code and designed circuits by using electronic devices which include step motor, motor driver, switches, relays, etc.
- Wrote weekly documents which include the progress, the design, and the logic of the system and present to the project manager in weekly presentations.

ACADEMIC PROJECTS

2016 - RECENT | **C, C ++ Related Projects**

- Emulating Shell Interface (Foreground, Background) – C, OS Related
- Disk Scheduling Algorithm, Bankers Algorithm – C, OS Related
- Simple Smart Pointer – C++

NOV. – DEC. 2017 | **IoT – Sensor Data Management from Hardware to Cloud**

- The system aims to send recorded audio data from the programming board over the BLE (Bluetooth Low Energy) connection to the smartphone device. This data will be saved as a file in the smartphone and uploaded to cloud device.
- Implemented sound recording, board interconnections, and BLE hardware part in Embedded C.
- Used various techniques including SPI and UART.

SEP. – DEC. 2015 | **Automated Robot Competition**

- Designed and created an automated robot in a team of six using Lego Mindstorms EV3 kit.
- Wrote parts of the Java programs that control the robot to perform different tasks synchronously
- Done tests to reduce the errors produced by sensors.
- Documented and presented weekly in the competition.
- Won the third place in this contest.