

KERRY LIU

1B Mechatronics
Engineering

CONTACT

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EDUCATION

University of Waterloo

Mechatronics Engineering, 2024

Admitted with an average of 95%

Relevant Courses:

Digital Computation (C++/RobotC)

Data Structure and Algorithm

SKILLS

JAVA

C++

RobotC (EV3 Robot)

Python (Self-taught)

HTML/CSS (Self-taught)

AutoCad

SolidWorks

GD&T

Cubicon Cubicreator

Microsoft Word

Bilingual: Mandarin

AWARDS & CERTIFICATE

- Lifesaving Society of Markham - **Standard First Aid with CPR-C**
- University of Waterloo - Ranked **top 25%** in the **Euclid** Math Contest
- Ontario Scholar 2019

INTEREST

- **Music:** Piano & Cucurbit Flute (both obtain a grade 8 level within 3 years)
- **Sport:** Badminton, Swimming
- **Hobbies:** Hamster, Rubik's Cube (Self taught more than 10 different kinds)

SUMMARY OF QUALIFICATION

- **C++** programming and **RobotC** programming for **EV3 Robots**
- **2D/3D** Mechatronics System Design with **AutoCAD** and **SolidWorks**
- Website creation using **HTML and CSS**
- **JAVA** programming for mini puzzle game
- Hands on skills with **3D Printing** using **Cubicon Cubicreator** for prosthetics

EXPERIENCES

Patience Recovery Activity Organizer - Providence Healthcare Hospital

June 2016 - June 2019

- Interacting with hospitalized patients, providing physical assistance on daily living requirements and mental support by communicating and doing leisure activities to help patients recovering health with positive attitudes.
- Committed **250 + hours** to this position.
- Honed organization and communication skills through volunteering.

Event Leader - Markham Milliken Children's Festival

August 2018

- Provided advice and assistance to the mayor and sponsors by collaborating with **10+ team members** to construct a structured plan for the distributions of **50+ exhibition stands**.
- Shown excellent leadership skills by leading several sub teams to work effectively and result in great outcomes.

PROJECTS

Lights Out Mini Game

November 2018- December 2018

- A puzzle game coded using **JAVA programming** language consists a grid (5*5) of lights that are either on or off. Pressing any light will toggle it and its adjacent lights. The goal of the game is to switch all the lights off.
- This program is able to keeps track of the number of clicks and the best scores for the player.

TRON Day

September 2019

- Designed and constructed a robot arm that has at least two degrees of freedom and is capable of lifting object with masses less than 200g.
- Developed specific skill sets for mechatronics engineering as well as many necessary soft skills for working.

Graphing Robot

October 2019 - December 2019

- Implemented a portable function-graphing system with **Lego EV3 Robot** and Tetrix Robotics Kit, as well as fully designed software using both **C++** and **RobotC** programming language.

Unlimited Arm - BioMechatronics Student Design Team

September - Present

- Member of the **E-Nable** sub team
- Design and develop prosthetic using 3D printing, and give to people who are in need