KERRY LIU

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++/ Object Oriented Programming), Data Structure and Algorithm, Circuits

SKILLS

- **C++**
- **Java**
- RobotC (EV3 Robot)
- **HTML/CSS**
- Python (Self-taught)
- AutoCAD
- Solidworks
- Cubicon Cubicreator/GrabCAD
- Microsoft Office

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

INTERESTS

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

SUMMARY OF QUALIFICATION

- Superior **C++** and **RobotC** programming for **EV3 Robots**
- **Java programming** for mini puzzle game with various **user interfaces**
- **5+ websites creation using HTML and CSS**
- **2D/3D** Mechatronics System Design with **AutoCAD** and **SolidWorks**
- Excellent **communication** and **leadership** skills shown through projects and volunteering experiences
- Hands on skills with **3D Printing** using **Cubicon Cubicreator** for prosthesis
- Competent in freehand sketching with knowledge on **GD&T**
- Proficient skills with **Microsoft Office**

EXPERIENCES

Mechanical Engineer - BioMechatronics Design Team (Unlimited Arm)
September 2019 - Present
- Collaborated with **5+ team members** to develop prostheses using 3D printing and received high appraisal by used patients
- Responsible for analyzing and optimizing the performance and expenses of printing materials in order to optimize the quantities and qualities

Patience Recovery Activity Organizer - Providence Healthcare Hospital
June 2016 - June 2019
- Coordinated **5+** monthly entertaining events allowing **50+** patients to recover with positive attitudes
- Interacted with **20+** patients providing physical and mental support which eased the healing process
- Dedicated **250 + hours** to this position while balancing with academics

Event Leader - Markham Children's Festival
August 2018
- Initiated and provided advises to the mayor and sponsors by collaborating with **10+ team members** to develop a structured plan for **30+ exhibition stands**
- Increased efficiency and customer sanctification by constructing a well-planed timeline for sub-events and performances

PROJECTS

Graphing Robot
October 2019 - December 2019
- Implemented a function-graphing system with **Lego EV3 Robot** through applications using **C++** and **RobotC** programming
- Tested and analyzed code to ensure robot quality throughout the process
- Used **Solidworks** creation and **freehand sketches** to develop detailed mechanical drawings

TRON Day
September 2019
- Designed and constructed a robot arm with two degrees of freedom with detailed **3D freehand sketches and Bills of Materials**
- Developed analytical and logical skills through the assembling process

Lights Out Mini Game
November 2018 - December 2018
- Programmed an interactive puzzle game through **Java** consisting a 5x5 grid of lights that will turn off in a specific pattern depending on user's method of approach