# RYAN SETO

# **MECHATRONICS ENGINEERING**

# PROFESSIONAL SKILLS

#### **Programming:**

- C/C++
- Python
- HTML/CSS

#### Mechanical:

- AutoCAD
- SolidWorks

#### Other Skills:

• Microsoft Word and Excel

#### **EDUCATION**

#### University of Waterloo September 2019 - May 2024

 BaSC in Honours Mechatronics Engineering

#### **Relevant Courses:**

- Currently taking:
  - Data Structures and Algorithms
  - o Circuits

#### CONTACT



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#### AWARDS

- Semi-finalists at the FRC world competition in 2019
- Gold standing at OBA music festival in 2018

#### **INTERESTS**

- Sports: Bouldering, Skiing, and Ultimate Frisbee
- Hobbies: Board games, Coding and Hackathons
- Music: Clarinet

#### **PROJECTS**

#### **Personal Website**

Jan. 2020

- Developed an online portfolio sharing my resume and projects using HTML
- Styled a drop down navigational bar and several web pages using CSS, to enhance visuals

#### **Space Invaders Game**

Nov. 2017

Programmed a basic version of Space Invaders using
Pygame with multiple enemies, interactive shooting and movement

#### **Controlled Mechanical Arm**

Sept. 2019

- Collaborated with a team to design a mechanical arm with the ability to pick up small and thin objects
- Constructed using a Tetrix Kit and used several motors and a controller to operate the arm in two degrees of freedom

# **Assembly Robot**

Oct. - Dec. 2019

- Coded in a C-based language to create a functioning Lego robot with autonomous movement
- Designed and built arms that actuated which enabled the robot to pick up objects
- Programmed the robot to use colour sensors to locate parts and assemble these parts together

### **Cellphone Stand**

Nov. 2019

- Designed a cellphone stand from scratch that was modeled in SolidWorks and 3D printed
- Stable functionality comparable to commercial products

#### **EXPERIENCE**

#### **FIRST Robotics**

Sept. 2016 - June 2019

- Managed a team of 50+ people that scouted other teams during competition by using spreadsheets to compile data for future analysis
- Competed at regional, national and world FRC competitions with Team 4308 Absolute Robotics

# University of Waterloo Formula Motorsports Jan. 2020 - Present

- Working with the aerodynamics sub team to develop the outer shell of the car for the 2020 season
- Learned how to apply carbon fiber lay-ups