## **Targeted Skills**

- Languages: JavaScript, HTML/CSS, SQL, Git, PHP, Python, R, C, C++, Scala, Scheme
- Tools: Visual Studio, IntelliJ, Vim, PowerShell, Windows, Linux, VMWare, R Studio, Google Suite

#### **Education**

### Waterloo, Ontario

## **University of Waterloo**

Sept 2019 - Current

• Candidate for Honours Bachelor's in Computer Science – Expected Graduation 2024

## Profile/Experience

# **Full-Stack Web Developer**

June 2019 – Aug 2019

CCM Canada Non-Profit Organization: http://centre.toronto.ccmcanada.org

- Independently developed a website using a full technology stack of **PHP**, **MySQL**, **CSS**, **HTML**, FlyWheel, WordPress for the Scarborough Office, customized website for each department's needs
- Enhanced donations website by improving **user experience** such as adjusting front-end display, data storage, improved loading speeds through compression and asynchronous loading
- Created **locally** hosted **web testing environment** for **staging** websites using **FlyWheel**, committed patches and modifications through **FTP** to web hosting server with FileZilla

# **Coding Club Executive Member**

Sept 2017 - June 2019

St. Robert Catholic High School

- Lead teaching initiatives, including instructing members on **Python, HTML and CSS** to prepare club members for coding competitions such as the Canadian Computing Competition
- Proficiently supported **hand-to-hand** training, coordinated club lessons of **50**+ students
- Tutored students through developing their mindsets of **debugging** and conceptualizing problems
- Volunteered at Kids Learning Code organization to teach coding to elementary students

### **Projects**

## **Gesture Detection A.I.**

MakeUofT Makeathon - https://github.com/diyang100/Rune

- Built a **wearable embedded device** with a 9-axis motion sensor using **C++** that records movement on button press and detects gestures; signals sent through wifi and processed with **Python3**
- Linked data to Artificial Intelligence learning using **TensorFlow** to learn and output the correct gestures
- Features 10 pre-built gestures though data collection/classification; option for customizable gestures
- Operation system connected from ESP32 with MQTT into Qualcomm Dragonboard 410c

### VMWare Environment

VMWare Workstation Pro

- Deployed a **remote virtual desktop** featuring Windows and Ubuntu VMWare environments
- Executed methods for remote connection through OpenSSH and PuTTY
- Established virtual disk sharing from Windows to Ubuntu through **Samba** (CiFS) Server and Ubuntu to Windows through **NFS Server**

### **Tic-Tac-Toe Bot**

• Implemented a tic-tac-toe bot using C++ containing an algorithm to always win or tie the game through recursion and case elimination, exploring the implementation of the **Minimax** algorithm