**Education**

Bachelor of Engineering (Co-op), University of Guelph 2016 – 2025

Major in **Engineering Systems and Computing**

Ontario Secondary School Diploma, Port Credit Secondary School 2012 – 2016

Graduated **with Honours** from **Sci-Tech Regional Program**

**Work Experience**

Java Learning Assistant May 2018 – Aug 2018

*Sheridan College – Trafalgar Campus*

* Helped students learn programming concepts and troubleshoot in multiple languages (primarily Java) though drop-in sessions, appointments and class visits
* Learned to create Java GUI applications using Java FX
* Held exam review seminars with prepared exam style questions
* Posted timely announcements in class portal website to ensure students’ success in upcoming projects
* Presented relevant announcements in class and reminded students of available tutoring resources
* Created posters for tutoring center and business cards for staff
* Worked flexibly in both Trafalgar and Davis campus locations

Robotics Instructor Jul 2017 – Jul 2017 (3 weeks)

*Durham District School Board – Lakewood Public School*

* Familiarized elementary school children with basic robotics skills in summer learning program to develop interest in STEM fields from a young age
* Taught basic programming skills and encouraged critical thinking and design skills using robotics kits by having students build and program without the use of instruction booklets
* Encouraged group engagement to complete tasks within a time limit
* Adapted teaching schedule based on primary classroom teacher’s needs day to day

**Projects**

Crows Nest – Motion Detection Camera  Jan 2018 – Present (ongoing)

*Github.com/Rr9/CrowsNest*

* Using Python and OpenCV, computer vision designed by Intel to identify key frame differences in video
* Start recording 10 seconds preceding detected motion, overlay time stamp and recording sign on frames
* Change framerates from passive monitoring to active recording for lower memory consumption
* Email notification with timestamp when motion is detected
* Using object-oriented programming in Python to learn OOP syntax and methodologies specific to Python

Computer Controlled RC Car Jan 2018 – Feb 2018

*Github.com/Rr9/arrowKeyRC*

* Used old RC car, Arduinos, wireless radio chips, sensors, and motor controllers to control car using computer arrow keys
* Programmed in Python, PyGame and C, using the computer’s USB port to transfer key strokes to radio chips to send to the car

**Proficiencies**

* **Languages:** C, C++, Python, Java, VHDL, GIT
* **Web Dev:** HTML5, CSS3, JavaScript & JQuery, PHP, SQL
* **Hardware:** Arduino, Interfacing Sensors, Vex Cortex, FPGA
* **Software:** Adobe Photoshop & Illustrator, LINUX OS, SolidWorks, MatLab