

# Rahul Rawat

## 2B Mechatronics Engineering

✉ r2rawat@uwaterloo.ca

📞 (226) 338 2094

🌐 ca.linkedin.com/in/rahulraw/

### Technical Knowledge

- Experience with C++, C, Python, Assembly, MATLAB, LabView, HTML, FBGA, VHDL and PLC Ladder Diagram
- Good knowledge of ROS, Gazebo and ARM Cortex
- Excellent with AutoCAD, SolidWorks and NX Unigraphics
- Knowledgeable with Linux and Windows Shell

### Skills

- Experience with design and construction of autonomous robotic equipment through involvement in various competitive robotics teams
- Well versed with digital circuit board design, microprocessors, Programming Logic Controllers (PLCs), embedded systems and interfacing
- Well trained in soldering and working with electrical schematics
- Acquainted with industrial machinery equipment including vertical mills, drill presses and pedestal grinders
- Works well independently and in teams
- Exceptional leadership and communication skills displayed through involvement with the Waterloo Engineering Society and the Royal Canadian Air Cadets
- Working knowledge of French and Hindi

### Projects

#### Mars Rover Challenge

*University of Waterloo Robotics Team*

- Implemented ROS to create visual data collection system
- Responsible for embedded programming of all terrain drive/steering system and precision robotic manipulator system

#### Robot Racing Competition

*University of Waterloo Robotics Team*

- Assembled a medium sized robotic car using Arduino with LIDAR sensors, encoders etc
- Applied serial communication to integrate remote control of the car
- Created advanced algorithms, image processing and drive systems

#### Waterloo Engineering Competition

*July 2013*

- Built a mechanically autonomous vehicle capable of firing goods over a large distance

### Work Experience

May 2014 **System Integration Engineer, Wilco Machine & Mold Inc.**

- Automated sealing and packaging machinery using Unitronics PLCs and Ladder Diagrams
- Designed high precision mechanical parts such as sealing plates and vacuum chambers
- Performed field testing of embedded real time systems and food manufacturing processes
- Machined high precision parts using manual lathes, mills and machine tools

Jan 2013 **Software Tester, CryptoMill Technologies Inc.**

- Tested full disk encryption software and determined potential software bugs
- Designed and Implemented new test cases to assess software functionality
- Setup a local server interactive database to analyze and visually represent test case results and relevant data
- Aided in company graphic design and advertisement of new encryption products

Sept 2013 **IT Intern, Purolator Inc.**

- Created and managed multiple databases to organize corporate data and automate business processes
- Proposed and implemented IT solutions for corporate management and executives
- Produced various support documentations for electronic dashboards to be used by developers and Purolator employees

### Education

**Candidate for Bachelor of Applied Sciences,  
Honours Mechatronics Engineering**

University of Waterloo, ON  
2017 Expected Graduation

### Hobbies

- Robotics
- Video Games
- A Capella
- Tennis
- Weight Training
- Drawing