

## Education

- **Queen's University** Kingston, ON  
*B.A.Sc., Computer Engineering with Professional Internship* *Sep. 2013 - May. 2018*
  - Areas of Study: Compilers, Computer Architecture, Data Structures & Algorithms, Data Mining, Discrete Mathematics, Electronics & Integrated Circuits, Neural Networks

## Professional Experience

- **Queen's Supermileage** Kingston, ON  
*Electrical Team Manager* *September 2017 - Present*
  - Overhauled and modularized components of the vehicle's electrical system and ECU to allow fast installation of different engine and gearing combinations
  - Updated the driver interface to use an android application and a bluetooth link to the ECU, allowing the driver to use both engine and phone sensor data to maximize fuel efficiency
  - Taught workshops on basic electronics to junior electrical team members
- **IBM Canada** Markham, ON  
*Software Engineering Intern, DB2 Security* *May 2016 - August 2017*
  - Designed and implemented encryption key caching to greatly reduce database dependence on an available key store
  - Implemented support for the PKCS #11 key management protocol, and access credential obfuscation, for DB2 native encryption
  - Designed, developed, and maintained automated Perl test scenarios for multiple components of DB2
- **Adaptall Manufacturing, Inc.** Pickering, ON  
*Software Developer* *August 2014 - September 2015*
  - Developed a line of business application for Adaptall Manufacturing's machine shop using C#
  - Developed an algorithm to accurately generate quotes for each job, accurate to within 10% of actual cost

## Project Experience

- **Custom RISC CPU and Assembler** Kingston, ON  
*Digital Systems Engineering, Queen's University* *January 2016 - May 2016*
  - Designed a custom CPU in VHDL for an Altera Cyclone V FPGA as part of a term-length project
  - Implemented an assembler for the custom CPU, using C#, for extra credit

## Technical Skills

- **Languages:** C, C++, Python, C#, Java, SQL
- **FPGA:** VHDL, Quartus IDE, Altera Nios 2 RISC Assembly
- **Electronics:** Circuit and PCB design with Eagle
- **Scripting:** Perl, Kornshell, Bash
- **Version Control:** Git, ClearCase, SVN