Justin Cook

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Highlights of Qualifications

- Enrolled in McMaster University's Mechatronics Engineering Program
- Excellent teamwork skills developed working on the Red Hat WildFly team
- Excellent problem solving skills developed through participation in Hackathons
- Experience with microcontrollers and web applications

Education

Bachelor of Engineering, Mechatronics III Expected Completion April 2020
McMaster University, Hamilton, Ontario

- High culmative GPA of 3.5 on a 4 point scale
- First year Dean's Honour List (78%+)

Relevant Project Work

- Worked with a team to develop problem solving and report writing skills to create an apple slicer and compile a report for the Engineering Profession course
- Enhanced communication and report writing skills through creating a full report detailing the design and implementation of a hoist system, with a mark of 98.3%

Relevant Courses

- In the Principles of Programming course, C and relevant topics, such as memory management, are taught for Mechatronics students can learn embedded programming
- In Analog and Digital Circuits, the theory behind how circuits work, how to perform calculations with circuits, and how to construct circuits are taught

Experience

Software Developer Intern May 2018 - Present
Red Hat

- Worked on the security division of the WildFly project
- Rewrote test suite to use dynamically generated certificates
- Helped fix several bugs in the WildFly Elytron subproject

Quality and Programming Intern May-August 2017
A&D Precision

- Assisted in revision of quality system to meet ISO 9001:2015
- Programmed and redesigned company website

- Created full calibration system application, including SQLite database, chart generation, and various methods to view data

Extracurricular Activities

- **Lab Coordinator & Website Programmer**, McMaster Mechatronics Society 2017-2018
  - Updated lab to include modern technology and electronics
  - Assisted other students with electronics and embedded programming issues within lab
  - Created new website for McMaster Mechatronics Society
- **Mentor**, Sumobot Club 2017
  - Assisted two teams in the beginner competition with design and implementation of their robot over several months
  - Further enhanced understanding of electronics and C programming through troubleshooting the mentees issues
  - Enhanced problem solving skills by helping to develop solutions for mentees
- **Participant**, YHacks 2016 2016
  - Utilized Python and Flask for Python to interface with iRobot Create 2 robot
  - Enhanced computer skiils creating web application using HTML, CSS, JavaScript, and jQuery to display data from robot and control it with virtual joystick
  - Placed third place for the challenge, as judged by iRobot employees
- **Member**, Sumobot Club 2016
  - Participated in the university wide robotics competition
  - Developed strong communication, organizational, and leadership skills while working in a team of four as team leader to build a competitive robot
  - Performed well in the competition, coming in fourth place

Skills

Hardware Skills

- Skilled with Arduino Uno R3, Infrared Sensors, Ultrasonic Sensors, Photoelectric Sensors
- Experience with 555 Timer, Binary Counter, H-Bridge, Logic Gates, Schmitt Trigger, ADC
- Experience with Oscilloscopes, NI MyDAQ, Motors

Software Skills

- Highly experienced in CSS, HTML, JavaScript, jQuery
- Proficient in Arduino, Python, Sass, LaTeX, Microsoft Office, LibreOffice
- Experienced in Electron, Foundation, jQuery UI, NodeJS, PHP, MATLAB, Simulink, VBA, SQLite, Shell Scripting, C
- Skilled in Brackets, WebStorm, PyCharm, Vim, Fritzing, Multisim, Ubuntu, Windows XP/7/8/10