ERIC HAGGAR

BASc Mechanical Engineering Student | Bsc Computing Technology Student (GPA: 3.7/4.0)

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TECHNICAL SKILLS

LANGUAGES

- Java
- Python
- MATLAB
- Batch

HARDWARE

- Arduino
- Single Board Computers

SOFTWARE

- Git
- SolidWorks

AWARDS/ACHIEVEMENTS

- University of Ottawa Dean's Honour List Award (2016-2018)
- University of Ottawa Merit Scholarship Award (2016-2018)

INTERESTS

- Soccer
- Hackathons: uOttaHack, CANDEV Data Challenge

PROJECTS

FOODSCRAPS – Food Producers Data Acquisition Tool | Python, HTML, CSS, JavaScript
Created at CANDEV Data Challenge at the University of Ottawa (2018 Winner)

- Web scraped Glassdoor and a Food Recalls database using **Selenium**
- Developed a scoring system algorithm to determine non-compliant food companies
- Displayed food producers' locations on a webpage using the **Google Maps API** and **Firebase**

BAJA SAE PARAMETRIZATION – Capstone Project | MATLAB

- Designed a fully parametrizable off-road vehicle using **SolidWorks** and **MATLAB**
- Developed a user-friendly GUI to automate the parametrization process

uOTTAWA ROBOTICS | Arduino
Software Team

- Built a robot that pushes obstacles off a table with a team of engineering students
- Learned **Arduino** programming in order to control an ultrasonic sensor and DC motors

PATRISTICS – Quote App | JavaScript

- Currently developing a quote app using **React Native** and **Node.js Express** Framework
- Designing **RESTful API** endpoints to display quotes and tags from **MySQL** database

WORK EXPERIENCE

CURTISS-WRIGHT, *Ottawa* May 2018 – Aug 2018
Software Developer – Embedded (Co-op) | C, Batch

- Developed scripts to automate Kernel configurations and create bootable OS images
- Implemented a scalable solution to automate the use of the Wind River Workbench IDE
- Performed hardware debugging involving probing to determine DIO driver pin configuration
- Scripted in bootloader to determine register values, connected devices and allocate memory
- Investigated device drivers to improve Board Support Package API testing on VxWorks RTOS
- Gained understanding of device driver implementation including ISR and memory allocation
- Created Black Box Testing methodologies to test multiple device drivers

CANADIAN COAST GUARD, *Ottawa* Jan 2017 – Apr 2017
Mechanical Engineer (Co-op) | AutoCAD, SolidWorks

- Updated mechanical and electrical technical drawings of a Mid-Shore Patrol Vessel (MSPV)
- Performed an engineering options analysis for the RCMP's Rigid Hull Inflatable Boats' (RHIBs) mounting frame
- Communicated and worked with a design and manufacturing company to provide a mounting system that will support Pelican boxes onboard the RHIBs

NATURAL RESOURCES CANADA, *Ottawa* May 2016 – Aug 2016
Assistant Technical Advisor (Co-op)

- Supported the development of Canadian components of the ENERGY STAR Portfolio Manager
- Computed energy efficiency scores for various building types using regression equations
- Performed behaviour analysis on source factors affecting energy efficiency scores for buildings
- Explored various options for the calculation of ENERGY STAR Scores' Data Center model.

EDUCATION

UNIVERSITY OF OTTAWA, *Ottawa* Expected Graduation – Dec 2019
BASc in Mechanical Engineering and BSc in Computing Technology

- Relevant Courses: Python (ITI 1120), Java (ITI 1121), Data Structures and Algorithms, Computer Architecture 1, Control Systems I & II, Advanced Control Systems