Ethan McAuliffe

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3rd year Computer and Management Engineering student ethan@emcauliffe.ca
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Education

McMaster University Hamilton, ON
Bachelor of Computer and Management Engineering (Co-op) Sept. 2018 - Present

- Completed 2.5 years (Cumulative 3.8 GPA)
- *CompEng 2SI4 & 2SH4* - Acquired an in-depth understanding of Python, C, and Java through lab work and testing (mark: 4.0 & 3.8 respectively)
- *CompEng 2DI4* - Developed knowledge on logic design and Verilog (mark: 4.0)

Royal St. George's College Toronto, ON
Ontario Secondary School Diploma (and AP credits) Sept. 2014 - June 2018

- *TEI4M* - Learned the fundamentals of computer engineering through a variety of projects such as building a breadboard computer, programming PWM fan control with USART readout in assembly, and more

Work Experience

Risk and Control Automation Analyst Toronto, ON
Royal Bank of Canada Jan. 2021 - Present

- Praised for improvements to team efficiency and organization by migrating task management system from a written document to Jira
- Refining JavaScript abilities through development of automated control testing scripts
- Gaining experience working with Jira, Confluence, and ServiceNow

Software Engineering Intern Toronto, ON
RT7 Inc. May 2019 - Aug. 2019

- Contributing member of a development team in a work environment
- Wrote documentation for existing Swift codebase
- Rebuilt existing product from scratch with React Native, uniting Android and iOS codebases
- Practised attention to detail when generating new apps and publishing with accurate info to the App Store

Summer Intern Toronto, ON
Achiga Inc. & Concierge Plus Jul. 2018 - Aug. 2018

- Reduced accounts receivable over 90 days by 80+% through effective communications with past due customers
- Extensive experience identifying and eliminating anomalies with money records/data
- Developed professional interpersonal skills through daily interaction with customers

Volunteering

Technical Assistant (TA)
Royal St. George's College Sept. 2017 - Jun. 2018

- Selected for a leadership role teaching younger students basic electronic circuits, Arduino programs, and technical writing
- Assumed a position of responsibility requiring maintenance and supervision of school workspace

Extracurriculars

Software Team Lead at McMaster Mars Rover Jul. 2020 - Present
McMaster University

- Coordinate and participate in the development of software for the McMaster mars rover with a team of bright and motivated individuals
- Work with ROS (Python & C++) to create a rover capable of autonomously or manually completing tasks like GPS waypoint navigation, obstacle avoidance, precise arm control, object detection, environment mapping (SLAM), and more

SHAD Valley Jul. 2017
Lakehead University

- Worked with other participants from across the country to develop a product and a business plan with the goal of reducing the energy footprint of individual Canadians
- Placed 1st regionally & qualified for national SHAD Cup competition

Ice Hockey 2006 - Present

- Former member of rep level hockey, high school varsity teams
- Instrumental in my development of teamwork skills and ability to work in a fast-paced environment

Personal Projects

Bottles Against COVID (https://bottlesagainstcovid.org)

- Built a full-stack website to facilitate contactless bottle drives during the COVID-19 pandemic
- Ran a bottle drive every week and raised over $3000 for St. Joe's Hospital in Toronto

Seat Alert (https://seatalert.ca)

- Built a website where students can sign up to receive email and text alerts when a seat becomes available in a course they are interested in
- Frontend in React with a FastAPI backend and a custom Python package to query public university databases

4-Bit Transistor-Transistor Logic (TTL) Computer

- Gained extensive knowledge in the working of computers on a binary programming level

Selected Skills

- Java
- Git
- Python
- C & C++
- Docker
- Flask & FastAPI
- Robot Operating System (ROS)
- Verilog
- AVR Assembly
- JavaScript
- ReactJS & React Native
- Swift
- MATLAB
- Bash (+zsh)
- I^2C, SPI, U(S)ART
- EAGLE PCB design
- Autodesk Inventor & Fusion 360
- *NIX Systems
- Quartus II
- Jira, Confluence, Trello

Communication

- English
- French (DELF B1 Certified)