

Ethan McAuliffe

4th year Computer and Management Engineering student
<https://github.com/emcauliffe>

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Education

McMaster University

Hamilton, ON

Bachelor of Computer and Management Engineering (Co-op) (3.8 GPA)

Sept. 2018 - Present

- *CompEng 2SI4 & 2SH4* - Acquired an in-depth understanding of Python, C, and Java with focus on data structures and algorithms
- *CompEng 3DQ5* - Developed modified JPEG decompression program in System Verilog

Royal St. George's College

Toronto, ON

Ontario Secondary School Diploma (and AP credits)

Sept. 2014 - June 2018

Work Experience

Software Engineer Intern

Veeva Systems

May 2022 - Aug. 2022

- Wrote automated tests in Java using Selenium web driver and Cucumber which caught issues with key products before pushing to production
- Refactored codebase to implement “single source of truth” philosophy to reduce future development hours and make debugging easier
- Worked with industry tools like Jenkins, Vagrant, and Serenity to monitor results of test runs and produce easy-to-consume reports for management

Software Developer

Toronto, ON

Integral Co.

Feb. 2021 - Dec. 2021

- Developed scheduling products to save manufacturing customer hours of manual labour each day. These products are used as showcases in advertising material for Integral
- Quickly building experience working with industry tools/libraries (FastAPI, React, SQLAlchemy) while adhering to customer requirements and deadlines

Risk and Control Automation Analyst

Toronto, ON

Royal Bank of Canada

Jan. 2021 - Aug. 2021

- Commended for ability to make impactful contributions towards the team's goals by developing robust, yet easily maintainable tests
- Praised for improvements to team efficiency and organization by migrating task management system and authoring clear documentation

Software Engineering Intern

Toronto, ON

RT7 Inc.

May 2019 - Aug. 2019

- 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

Extracurriculars

Software Team Lead at McMaster Mars Rover

Jul. 2020 - Present

McMaster University

- Manage, coordinate, and participate in the development of software (embedded and non embedded) for the McMaster mars rover with a team of bright and motivated individuals
- Work with ROS (Python & C++) to create and simulate a rover capable of autonomously or manually completing tasks like GPS waypoint navigation, obstacle avoidance, precise arm control, object detection, environment mapping (SLAM), PID drive control, and more
- Applying skills and tools learned in engineering courses (interrupts, I2C, UART, SPI, OOP, Linux, code documentation practices) and in commerce courses (recruiting, team building, project management)

SHAD Valley

Jul. 2017

Lakehead University

- Worked with other SHAD participants to develop a product and a business plan; placed 1st & qualified for national competition

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

Personal Projects

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/Preact (+from-scratch webpack configuration) with a FastAPI backend and a custom Python package to query public university databases (utilizing async libraries)
- Used by over 20k students across five universities

Bottles Against COVID (<https://emcauliffe.github.io/Bottle-Drive-Website/>)

- 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

4-Bit Transistor-Transistor Logic (TTL) Computer

- Gained extensive knowledge in the working of computers and computer architecture

Selected Skills

- | | | | | |
|--------------|----------------|-----------|-------------|--------------------------|
| – Python | – React | – ROS | – Docker | – *NIX |
| – Java | – React Native | – Flask | – EAGLE PCB | Systems |
| – C & C++ | – Verilog | – FastAPI | – Quartus | – I ² C, SPI, |
| – JavaScript | – Bash (+zsh) | – Git | – Keil | U(S)ART |