

# Ethan McAuliffe

3rd 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)*

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 labwork 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

- Gained experience working with Jira, Confluence, and ServiceNow
- Very recently started working in this position

### 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
- Gained experience with GUI development through collaboration with design team

### Summer Intern

Toronto, ON

*Achiga Inc. & Concierge Plus*

July 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

## Personal Projects

### Bottles Against COVID

- 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

### DeltaHacks VI Hackathon - StoryTime

- Worked in a team of 3 to build a React Native mobile application + REST API backend to generate short stories for users to read instead of scrolling through social media feeds

### 4-Bit Transistor-Transistor Logic (TTL) Computer

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

## Extracurriculars

### Software Lead at McMaster Mars Rover

July 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 to create a rover capable of autonomously or manually completing tasks like GPS waypoint navigation, obstacle avoidance, precise arm control, object detection, environment mapping, and more

### SHAD Valley

July 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
- Current member of McMaster intramural teams
- Instrumental in my development of teamwork skills and ability to work in a fast-paced environment

## Volunteering

### Technical Assistant (TA)

*Royal St. George's College*

Sept. 2017 - June 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

## Skills

### Software

- Git
- Flask & FastAPI
- EAGLE PCB design
- Autodesk Inventor & Fusion 360
- $\text{\LaTeX}$
- Nginx
- \*NIX Systems (Debian, FreeBSD, OS X)
- Quartus II
- Atmel Studio 7

### Programming Experience

- Java
- Python
- C & C++
- Verilog
- AVR Assembly
- JavaScript
- ReactJS & React Native
- Swift
- MATLAB
- Bash (zsh)
- I<sup>2</sup>C
- SPI
- USART

### Communication

- English
- French (DEL F B1 Certified)