Ethan McAuliffe

3rd year Computer and Management Engineering student

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Education

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

– *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

Work Experience

Software Developer (part-time)   Toronto, ON
Integral Co.   Feb. 2021 - Dec. 2021

– Building experience working with industry tools/libraries (FastAPI, React, SQLAlchemy) on a small, fast-paced development team
– Integrating customer feedback to develop a highly praised full-stack application to modernize manufacturing, shipping, and installation workflows
– Applying Python, JavaScript, Docker, SQL skills in a collaborative software development environment to quickly and efficiently deliver software products to customers

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
– Developed extensive experience on working and developing software in a corporate environment

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

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), differential drive control, and more
– Applying skills learned in engineering courses (technical) and in commerce courses (recruiting and team building)

SHAD Valley   Jul. 2017
Lakehead University

– Worked with other SHAD participants to develop a product and a business plan with the goal of reducing the Canadians' energy footprint; 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)
– Over 15k registered users and over 100k alerts delivered in the first year of operation

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

4-Bit Transistor-Transistor Logic (TTL) Computer

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

Selected Skills

– Java	– Bash (+zsh)	– Robot Operating System	– ReactJS & React Native	– EAGLE PCB
– Python	– MATLAB		– Docker	– Quartus II
– C	– AVR Assembly	– Flask & FastAPI	– I^{2}C, SPI, U(S)ART	– *NIX Systems
– JavaScript				
– Verilog	– Git			