

Alex McKinnon

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EDUCATION

Queen's University

BASc in Computer Engineering
Candidate
Software Engineering Stream
Expected Grad. May 2021

SKILLS

Programming

Experienced:

C/C++, Python, Unix Bash

Moderate:

Arduino, Java, MATLAB,
Nios II Assembly, VHDL

Beginner:

Swift, \LaTeX

Web Technologies:

HTML5, CSS, Bootstrap,
AWS: EC2, Cloudfront, S3

Tools:

Cygwin, Eclipse, Visual Studio,
Xcode, OpenCV, SDL,
Adobe CC: Lr, Ps, Pr, & AE,
MS Office & MS Project

COURSEWORK

Entrepreneurship Foundations,
Engineering Economics,
Engineering Design & Practice,
Computer Architecture,
Data Structures & Algorithms,
Microprocessor Interfacing &
Embedded Systems
Discrete Mathematics,
Machine Vision,
Operating Systems,
Software Quality Assurance

AWARDS

Duke of Edinburgh Silver Level,
Alexander Rutherford
Scholarship,
Lang Family Scholarship,
Ray Kingsmith Scholarship

PROJECT EXPERIENCE

CTRLGate Software Startup

September 2017 – September 2018

Co-founder

Kingston, ON

- Co-founded a start up company focused on providing campus access control software for gated communities.
- Approached and on-boarded to an incubator program at the Queen's University Innovation Center.
- Built up a diverse advisory board while learned the ins and outs of starting a business in the tech & security sector.

Queen's Satellite Design Team

Sept 2017 – February 2018

RF Communications Team Member

Kingston, ON

- Assisted with the development of the satellite's antennas communications system software.
- Developed a better understanding of implementing comm systems on satellites for RF communications using the AX.25 protocol.

Autonomous Targeting Defense System

Jan 2017 – Apr 2017

Arduino Programming and Electronics

Kingston, ON

- Assembled a motorized mount for a semi automatic paintball gun to be mounted onto a semi-autonomous sail boat.
- Responsible for the electronics and coding of the Arduino controller.

WORK EXPERIENCE

Engineering Society of Queen's University

February 2020 – Present

Director of Information Technology

Kingston, ON

- Manages the Society's infrastructure and uptime of \approx 35 Websites
- Introducing an automation initiative to reduce workloads society wide
- Oversees multiple software development teams, IT Operations Team & IT Education team

Queen's Residence Technology

April 2019 – September 2019

Support and Network Technician

Kingston, ON

- Responsible for maintaining and repairing network connections in every residence room on campus (\approx 4000). Gained a working knowledge of Queen's network structure, VLANs & related tech/protocols as they are applied in its large enterprise network.

Engineering Society of Queen's University

February 2018 – April 2019

Director of Communications

Kingston, ON

- Managed the communication channels of the Society.
- Started an ongoing archiving project with the focus of publishing a publicly accessible archive of old society files and media.
- Lead three content creation teams for production and promotion of the society, and one team for archiving society affairs and media.