

Alex McKinnon

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EDUCATION

Queen's University

BASc in Computer Engineering
Candidate
Software Engineering Stream
Expected Grad: May 2022

SKILLS

Programming

Experienced:

C/C++, Python, Unix Bash

Moderate:

Arduino, Java, MATLAB,
Dart, Nios II Assembly

Beginner:

Swift, Verilog, \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
Docker, LXC, Git

COURSEWORK

Computer Architecture,
Data Structures & Algorithms,
Discrete Mathematics,
Distributed Databases,
Engineering Design & Practice,
Entrepreneurship Foundations,
Fund. of Software Development,
Microprocessor Interfacing &
Embedded Systems
Machine Learning,
Machine Vision,
Operating Systems,
Software Quality Assurance

AWARDS

Order of the Purple Knight,
Lang Family Scholarship,
Ray Kingsmith Scholarship

Last updated 2022-03-02

PROJECT EXPERIENCE

Goose Deterrent Robot - Capstone Project

February 2020 – April 2021

Final Year Capstone Team Member

Kingston, ON

- Developing an multi terrain robot to ethically deter Canada geese.
- Using Azure Cognitive Services machine vision to "target" geese.
- Responsible for training the recognition model on Azure's cloud.

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.

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 – April 2021

Director of Information Technology

Kingston, ON

- Reformed the IT department to address unmet society needs.
- Established an ITops Security Team, new server infrastructure, self-serve managed hosting platform, reliable HR software updates, and an online IT help desk.
- Oversaw multiple software development & IT Operations Teams.
- Introduced an internal knowledge base & comprehensive training modules to combat information loss for our annual position turnover.

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 (≈ 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 primary communication channels of the Society.
- Lead three content production teams for media promotion of the society, and one team for archiving media and society affairs.