

> Employment

DevOps Developer - Value Connect
Guelph, Ontario

Jan. 2021 to Current

- Reduced AWS costs by 23%
- Responsible for maintaining and improving the project infrastructure and deployment
- Developed automated CD pipelines to validate that application code builds, is styled consistently, and passes unit tests
- Identified and optimized development processes that were allowing faulty Java code into production environments
- Converted manual infrastructure processes to use Terraform to create repeatable environments

Graduate Teaching Assistant - University of Guelph
Guelph, ON

Sept. 2019 to May 2021

- Teaching Assistant for the Microcomputers, Operating systems, Cloud computing, and Compilers courses
- Developed an automated grading harness to optimize the grading and feedback process

University of Guelph Mitacs Intern - Left
Maple Ridge, BC

May 2019 to Aug. 2020

- Conducting research on Mesh Networks and data storage with a team of industry developers, Master students, and a PhD candidate
- Wrote C++ simulator code for the ns-3 network simulator
- Successfully wrote and published a peer reviewed paper in the 2019 IEMCON IEEE conference proceedings

Research Assistant - University of Guelph
Guelph, On

Jan. 2019 to Apr. 2019

- Led development, integration, and testing of the web API for the eNuk environmental and health monitoring application
- Organized and facilitated weekly meetings
- Collaborated with external development team who was consuming our API
- Maintained and administered AWS EC2 and University servers and 3rd party resources for the project

RightMesh App Developer - Left
Maple Ridge, BC

May 2018 to Aug. 2018

- Developed and implemented peer-to-peer communication and data storage protocols for a native Android application as a part of a small team using the RightMesh mesh networking platform
- Developed novel solutions to solve implementation problems in an unreliable, distributed, peer-to-peer system
- Provided weekly progress updates to the project stake holders
- Identified fundamental shortcomings within the field leading to the start of my masters research

> Projects

liquidctl

Oct. 2020 to Current

- Active maintainer for the cross-platform CLI and Python drivers for liquid coolers and other devices
- Reverse engineering USB and I2C/SMBUS protocols to control system hardware for linux machines that the original manufacturers do not provide support for
- Triaged issues and feature requests to determine the priority of their implementations
- Reviewed pull requests from community contributors before they are added to the codebase

eNuk

May 2018 to Jan. 2020

- A community lead eco-health monitoring application for an Inuit community in Rigolet, Labrador using RightMesh as a method to try to help bridge the gap in the digital divide where there is very little infrastructure in place for digital communication in the community
- One of the lead developers on the project, responsible for deploying the web and cross platform mobile app
- Designed and developed the NodeJS based backend web server to ensure that the project can be extended and reused when the team changes

Botomir

Dec. 2020 to Current

- A Discord bot written with DiscordJS that is currently actively being used in several community servers
- An open source project developed to improve our skills and make useful add-ons to discords base functionality

> Education

University of Guelph

May 2019 to Current

Masters Computer Science 2021

Distributed Systems: Wireless Mesh Networks

Received prestigious NSERC and OGS Scholarships

University of Guelph

Sept. 2015 to Apr. 2019

Bachelor of Computing, Honours 2019

Degree with Distinction Recognition for Outstanding Academic Performance

> Volunteering

System Administrator ·

Society of Computing and Information
Science
Guelph, ON

Sept. 2018 to
Apr. 2020

- Acquired servers and other hardware to setup a maker space for the Computer Science student body
- Managed and configured servers for various programming workshops and MLH Local Hack Day events
- Coordinated and lead several MLH Local Hack Day events
- Maintained various club cloud services and administrated several servers

> Skills

LANGUAGES: Javascript, BASH, Java, Python, C/C++, SQL, Latex

DATABASES: MongoDB, MySQL

FRAMEWORKS: ExpressJS, DiscordJS, ns-3

TOOLS: git, Github Actions, Bitbucket Pipelines, AWS, Terraform, Docker, Docker-Compose

> Awards

University of Guelph ·

Canada Graduate Scholarships-Master's Program

Apr.
2020

(\$17500) Natural Sciences and Engineering Research Council of Canada (NSERC) Scholarship

University of Guelph ·

Ontario Graduate Scholarship

Feb.
2020

(\$5000) A merit based academic scholarship

University of Guelph ·

Erin Angus Graduate Student Award

Apr.
2020

Awarded to a graduate student for making significant contributions to student life

University of Guelph ·

College of Engineering and Physical Sciences
Society of Excellence

May
2019

Demonstrated academic excellence and outstanding contributions to the university community