Logan Roth

403-988-6180 ▪ logan.samuel.roth@gmail.com ▪ https://linkedin.com/in/loganroth

Summary

Hard working individual with a passion for learning who enjoys working as part of a team.

- Independent worker with strong technical skills who is enthusiastic to take on new challenges, often commended by supervisors for having a strong work ethic.
- Ability to learn quickly contributing to successful completion of work assignments in a professional environment without requiring full-time supervision.
- Strong time management skills and ability to multi-task, evidenced by successfully completing multiple projects and work tasks in a timely fashion.
- Flexible and adaptive to change evidenced by ability to refocus work efforts based on evolving business priorities.
- Proactive team member who is always looking for ways to help and contribute. Often looking for the opportunity to help co-workers and colleagues.
- Passionate learner who is always looking to learn something new, whether it is a new technology, a new language (spoken or programming), or just new fact.

Experience

Professional

Cisco Systems Canada: August 2020 – present

Software Engineer

- As part of the MFI team, contributed to new feature development of features now present in released code. Under shipment deadlines worked to thoroughly test code and create automated tests for new features as well as bug fixes such that the codebase is rigorously tested with a high degree of code coverage. This work has helped me gain an appreciation and understanding for the usefulness of having automated tests during development.
- Worked on solving bug issues found in regression testing through the use of GDB, general code inspection, and thorough testing.
- As part of the SR/PM team, contributed to writing parsers in Python for SR and PM cli commands. The result of this project is that all of the parsers are now being used actively in internal tests and/or are now part of the open source pyats genieparser library.
- Worked on improving internal code through improvements to the modelling infrastructure and solving of static analysis issues.

L3 Harris Technologies: Wescam (formerly L3 Wescam): May 2018 – August 2019

Software Engineering Intern

- Planned, proposed, designed and developed a framework which separated configuration data from core software logic of mounted surveillance equipment. Requirements were gathered from multiple teams including project engineering, system engineering and sales. Backwards compatibility was a significant feature, ensuring the framework was functional for existing products as well as new products. The framework was designed to be expandable and scalable in such a way that future developers would easily be able to integrate new functionality and code. Had responsibility for the full V-model and software life-cycle including requirements gathering, architecture and detailed design documentation, development, and testing of the project.
- As part of the DevOps team, supported and created tools for developers and the software team to help automate tedious tasks as well as keep development and release cycles consistent.
- Supported and improved a proprietary tool used throughout the company to perform software maintenance on products.
- Created and supported a tool which was used by all software developers to help automate cherry-picking of bugfixes throughout the codebase. This project resulted in my becoming one of the go-to Git people within the software department as I became extremely comfortable and proficient with the intricacies of Git.

Personal

Your Life (New Life) Mobile Application: September 2020 - present

- Personal project to create a goal and habit tracking app with the goal of uploading to the Apple App Store before the end of 2022.
- App is being built with the cross-platform mobile framework Flutter using the Dart language, which I have learned through Udemy courses and am now taking my learning in to developing my own apps.
- Requirements and design done by me with the thought of creating a genuinely useful app for myself that others may also find useful.
- The app uses on device storage in a MySQL database to store the habits and goals, with the intent to use Google Firebase to offload the data from the device as a future enhancement.
- All components have been built to be as reusable as possible such that future projects could use them easily. This was an active choice by myself to make future development efforts easier and reduce repeating my own work.
- GitHub: https://github.com/LoganRoth/NewLife

Autonomous Recycling Solution (Capstone Project): September 2019 – April 2020

- As part of a team of four Computer and Electrical engineering students at Queen's University designed and implemented an autonomous recycling system.
- The system classifies an object placed in a viewing area, moves the object via a platform attached to a ball screw to the appropriate recycling bin and pushes the object into the bin using a mounted actuator.
- I was responsible for the software components. This included designing and implementing the object detection algorithm as well as the Convolutional Neural Network (CNN) used to perform the object classification.
- The CNN architecture was designed after researching other professional papers solving similar classification tasks in consideration of the restrictions associated with the available Graphics Processing Units (GPU).
- The CNN was implemented using Facebook's PyTorch library and trained with the help of Google Colab. This allowed rapid testing of many different architectures to determine the one best suited to the task by leveraging the free GPUs available.
- This open-ended project contributed to developing my creative problem-solving skills as well as challenging and improving my self-learning skills as I was required to learn new technologies needed with no formal instruction.
- Our team was awarded 2nd place in the Hardware-Software category by the Queen's University ECE Department.
- GitHub: https://github.com/LoganRoth/greeneyes

Education

Queens University, Kingston, Ontario

Bachelor of Applied Science in Computer Engineering

GPA 3.97, Graduated April 2020

- Queens University Dean's Scholar: 2019/20
- Queens University Dean's List: 2015/16, 2016/17, 2017/18, 2019/20
- Queens University Entrance Scholarship: 2015

Technical Skills

Programming Languages	Proficient	Python, C, C++, JavaScript, Dart, SQL
	Familiar with	Swift, C#, Java, HTML, CSS
Operating Systems		Linux (Ubuntu), Windows, MacOS
Frameworks and Tool Kits		Flutter, React.js, Node.js, React Native, SwiftUI
Software and Technologies		Git, GitHub, Slack, JIRA, Bitbucket, Google Firebase, Google Colab