

# WILLIAM LEE

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## SUMMARY OF QUALIFICATIONS

- 4 years of programming experience obtained through work experience, co-op terms and course work
- Experienced building software using Source Control, Build Automation, Unit Testing, Design Patterns
- Excellent problem solving, decision-making and communication skills demonstrated by designing, implementing and documenting modular and efficient applications
- **Skills:** Python, C/C++, Java, Javascript, MySQL, Git, Make, unittest, Django, Reactjs, Bash shell

## WORK EXPERIENCE - Data Analyst | Canada Protection Plan | SEPT 2019 - PRESENT

- Worked closely with the Chief Distribution Officer to analyze sales data, identify trends/key performance drivers and share the results with all the sales managers across Canada
- Supported the Marketing team with sales campaigns and promotions by providing the data necessary to identify participants/winners and evaluate the impacts on sales performance
- Debugged and updated multiple Excel macros used for essential business functions

## SOFTWARE PROJECTS

- Currently developing a Django web app that will allow users to view, download and update reports
- Programmed a fast and reliable web browser bot using the Selenium framework in Python that navigated webpages, filled in HTML forms, and clicked buttons to automate data entry/updates
- Designed and implemented a portable and scalable reporting system in Python using pandas, openpyxl, pyodbc, plotly, smtplib and tkinter to generate and distribute various sales reports - the code was developed with tools including VS Code, Git, and unittest (python testing framework)
- Engineered an efficient and dynamic process to create, compress and email MGA profile reports in Python using Model View Controller (MVC) architecture - the script would generate HTML files with CSS and Javascript to format the tables, make the graphs interactive and make each page printable
- Built a VB console application to create a data pipeline where data could be entered into ADP and then propagated into multiple databases used by different applications and end users - the app would fetch data using an API and write the corresponding data into a GUI application using the Win32 API

## EDUCATION - Bachelor of Mathematics Co-op | University of Waterloo | SEPT 2014 - APR 2019

- **Computer Science Courses:** Object Oriented Software Development (C/C++), Foundations of Sequential Programs (Compilers), Computer Organization and Design (CPU architecture)
- Learned to develop software in a Linux environment and used tools including Vi/Vim (code editor), g++ (compiler), Make (build automation), Bash scripts, Valgrind (memory debugging), Github (SCM)
- **Relevant topics covered:** Recursion, Memory Management (Pointers, memory acquisition and release, Stack vs Heap), Abstract Data Types (Linked Lists, Trees, Stacks, Queues), Time Complexity Analysis (Big O Notation), Exception Handling, Regular Expressions, Bash Shell (Scripting, Pipes, File Permissions), Classes and Objects (Inheritance, Overloading, Constructors/Destructors, Encapsulation), Compilers (Assembly language, Scanners, Parsers, code generation and optimization)
- **Awards:** President's Entrance Scholarship (\$2000) - September 2014
- **Co-op Work Terms:** TD Bank CMRM - Counterparty Credit Risk (SEPT 2018 - DEC 2018), CIBC World Markets - Prime Services Group Technology (SEPT 2017 - APR 2018), Scotiabank GBM - Prime Brokerage (JAN 2017 - APR 2017), York Region - IT (MAY 2016 - AUG 2016)