

linkedin.com/u/viktorzhou  
github.com/yyuuhhjnnmm  
www.viktorzhou.info

# Viktor Zhou

Email:  
contact (at)  
viktorzhou (dot) info

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## Work Experience

**The Nielsen Company**  
*Software Developer*

Toronto, Canada

May 2019  
Present

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Developing the new core calculation engine in C++:

- Developed C++ code with **OOP**, Template Classes, Curiously Recurring Template Pattern
- Extensively worked with C++ **Smart Pointers**, C++ **STL** and C++ **Poco::JSON**
- Utilized **Python** to automate repetitive comparison between large files (RE, OS, GETOPT)
- Queried the Sybase database using **SQL** and investigated downstream **stored procedure**
- Worked in **Windows** using **Visual Studio** and in **Linux** using **Vim**, **g++** and **makefiles**
- Used **Bitbucket**, **Bamboo** and **Jira** for source control, CI/CD and project tracking

**Scotiabank: Global Analytics & Financial Engineering**  
*Software Developer (Full Time Contractor)*

Toronto, Canada

January 2018  
August 2018

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Created a proprietary **Object-Oriented** data structure for trade entries in **Python**:

- Optimized the processing time of over one million trade entries by 400% by minimizing Input/Output to file while considering space, time and security trade-offs
- Used **Git** for reversion control and **Bitbucket** for team code review
- Assisted in technical screening of candidates

Developed additional portfolio functionality in C++:

- Added new portfolio function into IBM Algorithms One, an **Object-Oriented** enterprise software used for aggregating trade information
- Implemented **Bash Shell** scripts to parse live market data for testing
- Automated QA with **Perl** scripts for daily overnight regression testing
- Composed company-wide memos detailing new portfolio functionality and usage

## Education

**University of Waterloo (UW)**

*Bachelor of Mathematics, Honours Computer Science*

Waterloo, Canada

September 2015  
April 2019

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Courses: Computer Networks, Artificial Intelligence, Distributed Systems, User Interface, Computational Math, Operating Systems, Algorithms, Lin Alg II, Calc III, Optimization

Awards:

- UW Academic Honour Roll Student Athlete 2017-18
- UW Athletic Council: Student Athlete Award Fall 2016

Athletics:

UW Men's Varsity Rugby  
(four years)

*Computer Science Tutor for Varsity Athletes:*

Fall 2017, Fall 2018

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- Tutored varsity athletes in Object-Oriented Programming (CS246), Algebra (MATH135), Calculus I (MATH136), Data Structure (CS240)

## Projects

**Google Hashcode 2020 Qualifier**

Toronto, Canada

February 2020

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- Implemented Monte Carlo (randomized) algorithm and greedy scheduling algorithms
  - International Ranking: 2288/10724 | Canadian Ranking: 40th