Candidate for Bachelor of Computer Science (Data Science), Pure Mathematics

- **Minor, Computational Mathematics Minor, University of Waterloo, September 2017 - present**

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• Programming Languanges

JAVA

C

C++

BASH

SCHEME/RACKET/LISP

ASSEMBLY (MIPS)

TEX (LATEX)

SQL

PYTHON

R

• Tools

GIT

IntelliJ

ECLIPSE

IBM DB2

MySQL

Jupyter Notebook

RStudio

Kafka, Zookeeper

Avro

Confluent

AWS MSK

Maven

JIRA, Confluence

Tensorflow

Springboot

MongoDB

Jenkins

Ant

• Language

MANDARIN (PROFICIENT)

JAPANESE (BASIC FAMILIARITY)

• Interests

Solving difficult math problems

Design little programs

Swimming, Saxophone

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Summary of Qualification:

- **Proficient in major modern programming languages with thorough understanding of algorithms and data structures.**
- **Excellent leadership, teaching, curriculum development, and oral and writing capabilities developed through different experiences**
- **Possessing a demonstrated ability to juggle multiple high priority tasks under time pressure**
- **Enthusiastic team player and learner, eager to meet challenges**
- **Capable of quick adaptation and acquiring new skills through self-study**
- **Proven ability to quickly and accurately learn various forms of technology and software.**

• Working and Research Experiences

2020-02 - 2020-04	**Software Engineer** eHealth, Inc. (Santa Clara, CA, USA) • *Working on "Brahma" project, microservices, platform building, data integration.* • *Working tools: Apache Kafka, Apache Avro, Confluent, AWS, MongoDB, Java/Spring.* • *Designing structures and choosing reasonable frameworks to build the complete data pipeline for customer profiles at eHealth as a platform engineer.*
2019-05 - 2019-08	**Backend Developer (Cloud)** IBM Canada Ltd. (Ottawa, ON, Canada) • *Contributing to Eclipse OpenJ9 open source project (IBM Runtime Technology)* • *Contributing to CAS-deepsmith research and development project (Java-version compiler fuzzing using deep learning), collaborating with Prof. Hugh Leather and his Ph.D. Student Chris Cummins (University of Edinburgh)* (http://homepages.inf.ed.ac.uk/hleather/publications/2017-benchsynth-cgo.pdf) (http://homepages.inf.ed.ac.uk/hleather/publications/2018_deepfuzzing_issta.pdf)
2018-09 - 2018-12	**Software Quality Assurance Engineer** Veeva System Inc. (Toronto, ON, Canada) • *Being as a member in Veeva Network automation team doing automation software tests* • *Working on Java, Bash, Json scripts on a daily basis* • *Using Selenium, TestRail, Jenkins, TestNG, MobaXterm, MySQL Workbench, Jira as working tools*

• Education and Projects

2017-09 - present	**Candidate for Bachelor of Computer Science (Data Science), Minor in Pure Mathematics, Computational Mathematics, Co-operative Program, University of Waterloo, Waterloo, Ontario**

Projects:

- **Kaggle Competition (Ongoing)**
- **Harvard OS/161 key features implementation**
  - *Synchronizations (mutex lock, conditional variable) with implementation of traffic light: 4-cross-section traffic light is simulated using 1 lock and 4 CVs*
  - *System calls: fork, exit, kill, getpid, execv*
  - *Memory manager, Page table for each block: code, heap(data), and stack*
- **Compiler of WLP4 (subset language of C++)**
  - *Using simplified maximal munch (DFA) as lexical scanner and using LR1 parsing, generating MIPS, implementing it with C++*
- **Quadris (C++)**
  - *Using design patterns and OOP to develop game of quadris (special form of tetris)*
- **Scheme programs**
  - *Accomplished school projects in Scheme with Dr.Racket*
  - *Learned to design functional programs effectively*

Courses:

- *Machine Learning, Scientific Computing, Computational Statistics, Operating System, Algorithms, Relational Database, Assembly Programming and Compiler Design, Computer Organization and Design, Computational Logic, Data structures, Object Orienting Programming, Functional programming, Lebesgue and Fourier Analysis, Real Analysis, Advanced Algebra and Linear Algebra.*

• Awards and Achievements

2017-09	President Scholarship of Distinction, Math Entrance Scholarship Awarded for outstanding performance in mathematics contests
2017-05	2017 CEMC Euclid Contest 90/100, top 25 (Group II) out of 13000+ contestants in Canada, School Champion (http://www.cemc.uwaterloo.ca/contests/past_contests/2017/2017EuclidResults.pdf)