Tingda **Du**

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Candidate for Bachelor of Computer Science (Data Science), Pure Mathematics Minor, University of Waterloo, September 2017 - present

Programming Languanges

JAVA

C

C++

BASH

LISP/SCHEME

ASSEMBLY (MIPS)

TEX (LATEX)

SQL

R

PYTHON

HTML/CSS/JAVASCRIPT

Tools

GIT

IBM DB2, MySQL

ECLIPSE, IntelliJ

Jenkins

JIRA, Confluence

MongoDB

Kafka

Ant

Selenium

TestNG

Language

MANDARIN (PROFICIENT)

JAPANESE (BASIC FAMILIARITY)

Interests

Solving difficult math problems

Design little programs

Swimming, Saxophone

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 streaming, platform and API building, etc.*
- *Working tools: Kafka, Snowflake, MongoDB, ElasticSearch, Oracle.*
- *Full-Stack Engineering including web, backend, and also data science.*

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, Co-operative Program, University of Waterloo, Waterloo, Ontario

Projects:

- **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:

- *Operating System, Algorithms, Relational Database, Assembly Programming and Compiler Design, Computer Organization and Design, Computational Logic, Data structures, Object Orienting Programming, Functional programming, 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)