

Qian Qiao

PERSONAL INFORMATION

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EDUCATION

University of Waterloo, Canada

Bachelor of Mathematics Candidate (2013 - expected June 2016), GPA 3.8/4.0
Double major in

- Computer Science, Honours
- Combinatorics & Optimization, Honours

HONOURS AND AWARDS

2015 Computational Mathematics Upper Year Scholarship
2014 Computational Mathematics Upper Year Scholarship
Term Dean's Honour List
2013 Term Dean's Honour List

EXPERIENCE

Qyer.com, Beijing, China, April 2015–July 2015

Software Developer (PHP, Python, Java, SQL)

- Developed and maintained RESTful API integrations.
- Designed and implemented python automation testing framework.
- Authored documents for technical design, implementation planning.
- Contributed to the demand review of new features of mobile applications.

University of Waterloo, Ontario, Canada, September 2014–March 2015

Teaching Assistant, Math239 Introduction to Combinatorics

- Worked in Tutor Centre to provide academic support.
- Marked weekly assignments and developed score report.
- Assisted students in better understanding graded work and midterms.
- Provided one-to-one assistant for students depending on their demand.

ASUSTeK, Harbin, China, September 2012–July 2013

Data Analyst, (Oracle, SQL, MS Access)

- Developed data report including market occupancy and changing trend analysis.
- Assisted with the creation and implementation of the Sales & Operations Plan.
- Assisted business development efforts by researching new markets.
- Edited and verified data on returned survey questionnaires.
- Evaluated and assessed statistical data produced from returned questionnaires.

PROJECTS	Winter 2016	Traveling Salesman Problem Solver (C++) Implementation and performance analysis A Star Search using nearest neighbourhood heuristics. Local Search using simulated annealing.
	Winter 2016	Fast Sudoku Solver (C++) Forward checking and back tracking. Most Restricted Variable and Least Constraining Value heuristics.
	Winter 2015	Computational error analysis (Matlab) Floating point error stability. Interpolating curve data by a parametric curve. Local error stability analysis. Higher order differential equations analysis.
	Winter 2015	OS161 Unix kernel Development (C) Implementation of synchronization, system calls, threads, multiple processes and memory management.
	Winter 2015	Vigenère Ciphertext Decryption (C++) Used statistics and computing theory.
	Fall 2014	C grammar Compiler (C++) Implementation includes scanner, parser, generator, assembler, and MIPS instructions optimization.
	Summer 2014	Quadris: a Latinisation of the game Tetris (C++) OOP with command line features, displayed by X11.
	Summer 2014	League of Legends Game Replay For Mac OS X (Shell Scripts) Support Mac users to watch game replay without log in client.

COURSEWORK

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| <input type="checkbox"/> Linear Algebra | <input type="checkbox"/> Functional Programs |
| <input type="checkbox"/> Number Theory | <input type="checkbox"/> Algorithm Design |
| <input type="checkbox"/> Calculus | <input type="checkbox"/> Logic and Computation |
| <input type="checkbox"/> Combinatorics | <input type="checkbox"/> Object-oriented Programming |
| <input type="checkbox"/> Probability | <input type="checkbox"/> Data Structure |
| <input type="checkbox"/> Group Theory | <input type="checkbox"/> Database Management |
| <input type="checkbox"/> Coding Theory | <input type="checkbox"/> Sequential Programs |
| <input type="checkbox"/> Optimization | <input type="checkbox"/> Computer Organization |
| <input type="checkbox"/> Graph Theory | <input type="checkbox"/> Numerical Computation |
| <input type="checkbox"/> Network Flow Theory | <input type="checkbox"/> Computing Theory |
| <input type="checkbox"/> Combinatorial Enumeration | <input type="checkbox"/> Cryptography |
| <input type="checkbox"/> Real Analysis | <input type="checkbox"/> Operating Systems |
| <input type="checkbox"/> Statistics | <input type="checkbox"/> Machine Learning |
| | <input type="checkbox"/> Artificial Intelligence |

RELEVANT SKILLS

Programming: C/C++, JAVA, Python, SQL, Shell Scripts, Scheme
 Scientific Computation: R, Matlab, Maple, Latex
 Languages: English (Fluent), Mandarin (Fluent), Korean (Beginner)

ACTIVITIES

2015 - present: Hearth Stone Tespa Club Leader
 2014 - present: Lomography Club Member