

# William Tang

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## EDUCATION

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### University of Waterloo

Bachelor of Computer Science (Data Science)

Sep 2016 – Exp. Apr 2021

- **Relevant Coursework:** Applied Linear Models, Experimental Design, Probability, OOP, Algorithms

## WORK EXPERIENCE

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### Huawei Technologies

Waterloo, Ontario

Software Developer Intern

Jan 2019 – Apr 2019

- Built and deployed backend for KolmoLD web app to Google App Engine utilizing Golang and RedisDB that implements search, upload, and download functions based on content ID
- Implemented delta encoding image enhancement tool for PNG images in C++ that efficiently upscales images using a 'delta' file
- Applied various compression methods on the 'delta' file such as Run Length, Huffman, Lempel-Ziv encoding
- Automated generation and execution of test cases with Bash scripts

### RPM Technologies

Toronto, Ontario

Software Developer Intern

May 2018 – Aug 2018

- Developed SQL procedures to be executed through a desktop user interface
- Created software using Oracle BI to generate a variety of financial reports for clients while following the software development life cycle (SDLC)
- Automated development with Python by generating commonly shared SQL queries

## PROJECTS

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### Esports Statistics Database

Python, SQL, SQLite, BeautifulSoup

- Developed a web scraper using Python to retrieve match statistics from HLTv.org
- Created a SQLite database and used SQL queries to store, retrieve, and process scraped data
- Implemented multiprocessing to increase web scraper efficiency by 300%

### Tetris

C++

- Implemented Tetris in C++ using the Model View Controller and Observer design pattern
- Followed RAII idiom by using smart pointers to eliminate the possibility of memory leaks

## TECHNICAL SKILLS

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- C++ · C · Python · SQL · Go · Bash · R

## INTERESTS

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- Studying piano and competing in piano competitions (Previous placements: 1st Place at Kiwanis Music Festival - Chopin Major Work, Provincial Round at Canadian Music Competition)