

Qi Shu

4B Honours Computer Science and Business Administration Double Degree

Expected Graduation Date: April 2021

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Skills

- Languages: C++/C, TypeScript, JavaScript, JSX, HTML, CSS, Python, Java, Scheme, Bash, SQL, VBA
- Library/Framework: React, Node.js, jQuery, WebGL, Three.js, d3.js, NumPy
- Tools: Git, Linux/Unix, Xcode, Vim, LaTeX, MacOS, Android, iOS

Work Experience

Front-End Engineering Intern

Jan 2019 – Present

Imple Data

San Francisco Bay Area, CA

- Developed highly abstract and extensible React components with Blueprint.js from scratch for Apache Druid web console by refactoring original Angular.js codebase, extending new features and enhancing the UI
- Built a user interface feature which analyzed and output clients' data usage through HTTP requests for finance team, and has the potential of increasing company's revenue exponentially

Research Assistant – Compiler Construction

Aug 2018 – Dec 2018

UW Data System Lab

Waterloo, ON

- Compiled DBMS that has a simple extensible runtime and operates by translating SQL-like data manipulation requests directly to C code that interfaces with this runtime

Research Assistant – Web Application Development

May 2018 – Aug 2018

UW Human-Computer Interaction Lab

Waterloo, ON

- Built an online Crowd Working platform based on Node.js
- Parsed data with Python for analysis in NumPy to discover a more efficient online Crowd Working strategy which is mutually beneficial to both parties

Web Developer

Jan 2018 – Apr 2018

Ontario Investment Office

Toronto, ON

- Visualized relevant data on office website in an interactive way using d3.js and highchart.js libraries
- Created JavaScript widgets such as a responsive table of content for office website to improve its functionality and user experience
- Designed web-based graphics with WebGL and Three.js to enhance the user interface

Notable Projects

3D Interactive Earth

- Built a WebGL-based 3D Earth Model displaying Ontario's investment connections with the world
- Developed clickable CSS-based 2D location points to follow 3D Earth movement pattern, with 3D projectiles connecting points to showcase Ontario's investment relations with other countries.

Tetris Game

- Established the Tetris game with C++ as a class project and attained a score of 99.8%
- Adopted Observer, Model-View-Controller and Template Method Design Patterns

Sunburst Data Visualization

- Built a responsive sunburst diagram based on JavaScript, which extracts data from HTML tables and renders through d3.js

Awards

1st place in Women Empowerment Category in Equithon

May 2017

- Built website-based childcare service platform iCare, with HTML widget with input boxes which can display, store and process information

Education

University of Waterloo, Waterloo, ON, Canada

Sep 2016- Present

- Honours Computer Science and Business Administration Double Degree (Co-op), Minor: Statistics