





# David Zhang

Software Developer - BCS & BBA Double Degree

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## Experience

### Shopify

Ottawa, ON | Jan 2019 – Apr 2019

Backend Software Developer Intern, Financial Reconciliation Ruby, Rails, SQL

- Took ownership of building the Avalara API client which is now responsible for calculating and recording taxes for 800,000+ merchants.
- Decreased lost tax revenue by developing an address validation algorithm which improves tax jurisdiction detection.
- Increased the accuracy of reported revenue by improving the revenue recognition model in 3 edge cases.
- Implemented a reconciliation control which detects a type of revenue anomaly.

### Mastercard Ethoca

Toronto, ON | May 2018 – Aug 2018

Junior Software Developer Intern, Eliminator Platform Java, Spring, JavaScript

- Overhauled the merchant search mechanics by designing a search engine with 5 dimensions of parameters.
- Implemented features including dynamic configuration, collapsible components, and automated testing.
- Decreased 50% of server load by efficiently routing Ingridian encryption requests.

### Cubicell

Vancouver, BC | Mar 2017 – Aug 2017

Software Developer Intern PHP, JavaScript, SQL

- Decreased user management hassle by 50% through revising the user management flow in a customer's web platform.
- Improved the relational logic of a customer's database by restructuring tables and writing more efficient queries.

## Projects

### Wave App Suite

Flutter, React, SQL, Docker

2018 – Present

- Built and published the mobile and web app which transfers data via sound frequency transmissions.
- Architected the backend API to efficiently manage frequency code mappings and extensive file storage.

### Distractic

Android, SQL

2018

- Developed an Android app to detect distracted driving behaviour.
- Designed an algorithm using Firebase ML and 3-dimensional head pose data to alert for distractions in real-time.

### Other Projects

- DevTools | BudgetBuddy | MedicARe | SafeMe | GroShare

## Skills

### Languages

Java	Ruby	Python
C++	C	SQL
PHP	Javascript	HTML/CSS

### Frameworks

Rails	Spring	React
Android	Flutter	

### Tools

Git	MySQL	Docker
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## Activities & Honours

### Co-op

Outstanding evaluation from all previous employers

### Programming

440 GitHub contributions (2019)

### Hackathons

Hack the Six Finalist (2018)  
Attended 7 hackathons (2018-2019)

### Case Competitions

TD Bank Case Competition Semi-Finalist (2017)

### Leadership

University of Waterloo Orientation Week Leader (2018)

Montroyal Coding Club Founder and Instructor (2017)

### Other Interests

Public Speaking, Tennis, Fitness

## Education

### University of Waterloo

Bachelor of Computer Science  
(Sep 2017 - Aug 2022)

### Wilfrid Laurier University

Bachelor of Business Administration  
(Sep 2017 - Aug 2022)