



# Alan Ma

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github.com/alan-ma 

+1 (437) 993-5600 

## Education

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**University of Waterloo** | BAsC, Software Engineering

2018 – 2023

- 3.51 GPA – 88% Cumulative Average; President's Scholarship of Distinction
- Relevant Courses: Compilers, Linear Algebra, Calculus, Digital Circuits and Systems

## Skills

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**Languages:** Java, Python, Go, C/C++, JavaScript, Scala, C#, SQL

**Technologies:** Angular, Oracle SQL, Redis, Vue.js, Node.js, Firebase, Linux, AWS, Nginx, Git

## Experience

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**Oracle NetSuite**

May – August 2019

Software Engineering Intern

Waterloo, ON

- Developed middle tier APIs using **Java** for a new feature that allows employers to pay out bonuses
- Implemented a data loss prevention system to increase data accuracy by 14% using **Oracle SQL**
- Built data correction tooling in **SQL** to find and repair erroneous values in client bank accounts
- Shortened payment calculation speed by 25% by eliminating redundancy in legacy software

**SOTI Inc.**

July – August 2018

Software Engineering Intern

Mississauga, ON

- Developed **REST API** endpoints in **C#** to deliver vehicle information in a fleet management application
- Built services and data models in **Angular** and **TypeScript** to communicate with microservices
- Upgraded cross-browser compatibility by resolving issues with component styling

## Projects

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**Game Streaming Service** | [github.com/alan-ma/game-sharing](https://github.com/alan-ma/game-sharing)

- Designed a gaming platform using **Go**, delivering content via **WebSocket** and **REST API** endpoints
- Implemented save and restore capabilities with **Redis** databases, using concurrency to improve speed

**FireWatch – Hack the North 2018 Winner** | [devpost.com/software/firewatch](https://devpost.com/software/firewatch)

- Built a website using **Vue.js** that alerts users about dangerous wildfires based on location proximity
- Leveraged HERE's Maps API using **JavaScript** to display over 40,000 live fires from NASA satellites
- Integrated evacuation centre data from the Red Cross to direct users to safety

## Extracurricular Activities

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**Hack the North – Organizer**

2019 – Present

- Coordinated transportation to bring 1,500 students from over 20 countries to Waterloo for Canada's biggest hackathon by working with the Canadian and international governments

**Woodlands Consulting Team – Executive**

2014 – 2018

- Developed an education platform for multiple choice exam practice using **Angular** and **Firebase**
- Parsed PDFs using **Python** to retrieve and store over 10 years of exam questions in a **NoSQL** database