Alan Ma

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Education

University of Waterloo | *B.Sc. Software Engineering* *2018 – 2023*

• 3.8/4.0 GPA – 87% Cumulative Average; President's Scholarship of Distinction

Skills

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

Technologies: MongoDB, Hadoop, Flask, Vue.js, Node.js, Angular, AWS SQS, Firebase, Git

Experience

Wish | *Software Engineering Intern* *January – April 2020*

• Designed a new product feed in **Python**, growing profit from ad revenue by $2.3 million annually

• Optimized automated marketing campaigns by A/B testing ranking algorithms that compiled data from **MongoDB** and **Hive SQL**, boosting the click rate of notifications by 15%

• Engineered a push notification library to improve security with the OAuth2 model, using distributed processing and **AWS SQS** to deliver 500 million notifications per day

Oracle NetSuite | *Software Engineering Intern* *May – August 2019*

• Built APIs and user interfaces in **Java** to streamline the management of bonuses in payroll software

• Developed a more robust algorithm to calculate accrued paid time off, preventing compensation errors

• Migrated data in **Oracle SQL** as part of a team effort to hotfix inconsistent account settings

SOTI Inc. | *Software Engineering Intern* *July – August 2018*

• Developed REST API endpoints in **C#** to deliver vehicle information in a fleet management application

• Created components and services in **Angular** and **TypeScript** to enable vehicle customization

Projects

DECA Online Education Platform | *hub.decawoodlands.com* *2017 – 2020*

• Developed a full-stack application for business club members using **Python** and **Vue.js**, leading to a 50% increase in members qualifying for international competitions

• Implemented user roles and token-based authentication to secure REST API endpoints in a **Flask** server

• Integrated with **Firebase** Cloud Firestore to allow for a flexible and scalable **NoSQL** database

FireWatch – Hack the North 2018 Winner | *devpost.com/software/firewatch* *2018*

• Built a website that warns local residents about dangerous wildfires, using **JavaScript** to display real-time satellite data

Extracurricular Activities

Hack the North | *Organizer* *2019 – Present*

• Coordinated transportation logistics to bring 1,500 students from over 20 countries to Waterloo for Canada's biggest hackathon

Google Code Jam | *Competitor* *2020*

• Competed in Google's global coding competition, placing in the top 11% of 40,000 contestants worldwide