Alan Ma

axma@uwaterloo.ca ✉
github.com/alan-ma
+1 (437) 993-5600 ☎

Education

University of Waterloo | *B.Sc. Software Engineering* *2018 – 2023*
• 3.8/4.0 GPA; 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

Google Code Jam | *Competitor* *2020*
• Competed in Google's global coding competition, placing in the top 11% of 40,000 contestants worldwide

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