# Alan Wang

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### **EDUCATION**

## **University of Waterloo**

Bachelor of Computer Science

September 2020 - April 2025

Waterloo, Ontario

#### TECHNICAL SKILLS

Languages: JavaScript/TypeScript, Java, Kotlin, HTML, CSS/SASS, C++, C, SQL Technologies: React/React Native, Redux, Node.js, Express.js, Spring/Spring Boot, Jest Tools: Git, Docker, Azure, PostgreSQL, MongoDB, Visual Studio Code, IntelliJ, Linux

#### **EXPERIENCE**

### **Canadian Imperial Bank of Commerce**

January 2023 - April 2023

Software Developer Intern

Toronto, ON

• Currently on the eBanking team, developing a Java API service layer, in a micro-services architecture, to manage digital banking account information

**PointClickCare** May 2022 - August 2022

Software Engineering Intern

Waterloo, ON

- Worked on content service team, focused on writing backend services to process patient medical data
- · Developed new backend service to autofill PDF forms using XML form data, writing endpoints and backend functionality in **Kotlin** using **Spring Boot**
- Implemented backend service using **Azure file storage** to save and retrieve PDF templates
- Optimized SQL queries and stored procedures for manipulating patient data, reducing runtimes by 12%
- Wrote unit tests in Kotlin, and end-to-end tests in Cypress, bringing overall coverage from 80% to 87%

#### PBSC Urban Solutions

May 2021 - August 2021

Longueuil, QC (remote)

- Software Developer Intern
  - Developed new mobile UI components and views in TypeScript with React Native, Redux and Emotion
  - Implemented new feature allowing bluetooth connectivity to e-bikes, using native Android/iOS APIs
  - Wrote unit and snapshot tests using Jest and Enzyme, increasing overall coverage from 42% to 70%
  - Spearheaded move to automated end-to-end tests, designing and prototyping a test development setup using Mocha, Appium and WebdriverIO

#### **PROJECTS**

Aitomind | React, Node.js, Express, Azure, MongoDB | Github Link

- Developed full stack web app that transcribes speech and generates conceptual mindmaps from videos
- Implemented frontend in **React** and backend in **Node.js** and **Express**
- Leveraged Azure Cognitive Services REST APIs and deployed custom ML model to extract connected keywords
- Connected backend to MongoDB database using Mongoose object modelling library to save mindmaps

No Laughing Matter | Node.js, Express, Websockets (Socket.IO), WebRTC | Github Link

- Developed realtime video chat game, that detects and measures player laughter to rate a player's jokes
- Utilized Socket.IO to manage lobbies, and WebRTC to facilitate real time video streaming
- Integrated Tensorflow.js library to measure user laughter from analyzing facial expression and sentiment

TimeCheck | React, Firebase (User Authentication, FireStore NoSQL database) | Github Link

- Built web application for teachers to administer and track online quizzes and practice questions for students
- Integrated Firebase services for user authentication, and to store user data in FireStore NoSQL database
- Developed frontend in React with an HTML Canvas component for teachers to annotate student work

Personal Interests: Music production, guitar, martial arts, philosophy, art history, badminton