Alan Wang

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EDUCATION

University of Waterloo   September 2020 - April 2025
Bachelor of Computer Science   *Waterloo, Ontario*

TECHNICAL SKILLS

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

EXPERIENCE

Canadian Imperial Bank of Commerce   January 2023 - April 2023
Backend 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
Software Developer Intern   *Longueuil, QC (remote)*
- 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**
- Spearheaded move to automated **end-to-end tests**, designing and prototyping a test development setup using **Mocha, Appium and WebdriverIO**
- Wrote **unit and snapshot tests** using **Jest and Enzyme**, increasing overall coverage from 42% to 70%

PROJECTS

Aitomind | *React, Node.js, Express, Azure, MongoDB*
- 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*
- 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)*
- 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