

Thomas Kou

Computer Science Student at University of Waterloo

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SKILLS

Languages Python, C++, JavaScript, Java, Kotlin, C, TypeScript, SQL, Scala
Tools Node.js, React, Express.js, Spring Boot, Redux, Sass, AWS

EXPERIENCE

FISPAN Software Developer Co-op • Remote (Vancouver, Canada) Sept. 2020 – Dec. 2020

- Worked in team that integrates third-party enterprise resource planning systems into all-in-one bespoke **fintech software** for use by banks and businesses.
- Created integration and automated syncing system for **Intuit Quickbooks** bookkeeping software using **Spring Boot** and **Kotlin** in a pilot to expand services to **100+ small businesses**.
- Built an **internal dashboard** using **React** and **Redux** that monitors client connectivity and diagnoses errors with new Kotlin accounting core, while retaining backwards compatibility with legacy Java microservices.

Wish Software Engineer Intern, Payments • San Francisco, USA Jan. 2020 – Apr. 2020

- Spearheaded development of **Python backend** APIs that use **PayPal** and **Braintree** to collect outstanding cash payments from partnered Wish Blue satellite stores.
- Expanded pay-in-installments feature on **iOS/Android** to the UK, leading to a projected **\$6.3 million increase** in annual GMV.
- Implemented dynamic shipping address serialization for **worldwide address verification**, reducing cancellations by **16.7%**.
- Built a **daily pipeline** that recovers gift card failures by tracing **MongoDB** documents to determine where card claims failed.

Prizm Media Inc. Junior Web Developer • Vancouver, Canada Apr. 2019 – Aug. 2019

- Worked on a web/mobile prescription ordering service using a **Node/Express** backend and **React/Redux** frontends.
- Set up an **automated testing infrastructure** for user flows using **LambdaTest** and **CircleCI**, saving 15+ man hours per week.

PROJECTS

Memo Social Flashcard Web-App Jun. 2020 – Aug. 2020

- Built the full-screen card view in an online flashcard-based studying application using **JavaScript** and **React**.
- Implemented liking/commenting on cards using **Node** endpoints and **MySQL** relations, adding a social layer to the application.

React-Snake Aug. 2019

- Created a web-based Snake game in **TypeScript**, **React**, and **Redux**, with high scores submitted to a **Firebase** server.
- Deployed the **Node.js**-based app to an **AWS Amplify** server.

LED Matrix Audio Visualizer Nov. 2018

- Developed a **Python** program to visualize microphone or music data live on an LED matrix using a **Raspberry Pi**.
- Used Fourier analysis to serialize audio information in realtime, and an **MQTT** protocol to send data to the Raspberry Pi.

EDUCATION

University of Waterloo • Bachelor of Computer Science, Honours, Co-op 2018 – 2023 (expected)

- Math & Engineering Dean's Honours Lists – GPA 3.97/4 (91.6%)
- Algorithms, Data Structures, Operating Systems, Database Management, Object-Oriented, Statistics, Digital Computers