Kyle Otero

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EDUCATION

Wilfrid Laurier University — Expected May 2026
Hons. Bachelor of Science, Computer Science, Minor in Psychology — *Waterloo, ON*

York University, Lassonde School of Engineering — September 2021 - May 2023
Bachelor of Science, Computer Science — *Toronto, ON*

EXPERIENCE

Doordash — May 2024 - August 2024
Software Engineer Intern — *Toronto, ON*
- Designed and implemented a Redis caching layer in **Kotlin**, achieving a **40% reduction in API latency** and serving **over 3 billion** requests per day
- Developed cache invalidation logic to maintain synchronization with the **Cassandra** database through **Kafka** pipelines
- Conducted and managed a shadow comparison deployment to validate the new caching system, closely monitoring and analyzing performance metrics to ensure reliability

Datadog — January 2024 - April 2024
Software Engineer Intern — *New York City, NY*
- Designed and developed a **Kubernetes** controller that monitors, filters (by type, namespace, and zone), and manages lifecycle events (creation, update, deletion) of network-deployed objects, utilizing **Go channels** for efficient watching
- Optimized the object creation process within an internal API in **Go**, enhancing service discovery across **Kubernetes** clusters, resulting in a **40% improvement** in efficiency of creating objects
- Refined the serialization method for the objects deployed in our API, removing the need to create an individual serializer for each object type and replacing it with one generic serializer

Dropbox — May 2023 - August 2023
Software Engineer Intern — *Remote*
- Engineered a major overhaul of the backup service using **TypeScript**, resulting in significant performance improvements of up to **20% for over 30 million users**
- Implemented an intuitive onboarding page for first-time users with **Electron**, utilizing **RPC** (Remote Procedure Call) to establish seamless communication with **Python APIs**
- Migrated parts of the existing backup service from **Python** to **TypeScript**, leveraging the benefits of **TypeScript**'s static typing and enhancing code maintainability and reliability

York University — January 2023 - April 2023
Undergraduate Teaching Assistant — *Toronto, ON*
- Teaching assistant for EECS1022 (Intro to Object Oriented Programming)

PROJECTS

File Storage System | *Go, SQLite, TypeScript, React, TailwindCSS* — December 2022
- Utilized an **SQLite** database with **Go** to store and access files in a reliable and efficient manner
- Developed a website using **React** and **TailwindCSS** for the front-end and **Go** for the server-side
- Leveraged the power of **React** and **TailwindCSS** to build a responsive and intuitive user interface that adapts to different screen sizes and devices

Credit Card Optimizer | *Python, JavaScript, React Native* — Hack the Valley 2023
- Developed an API using **Python**, and **Flask** to present the optimal credit card to use based on location data
- Designed a **React Native** mobile app to display to the user, storing data in **Async storage** and pulling location data
- Established connections with Google's places API in order to get specific info from a set of coordinates

English to ASL Translator | *Python, Flask, JavaScript, jQuery, HTML, TailwindCSS* — Hack the Valley 2022
- Led a team to design a website using **JavaScript**, **HTML**, and **TailwindCSS** to translate text to sign language
- Created an API in **Python** with **Flask** to parse received text, and send requests to a database of videos

TECHNICAL SKILLS

Languages: Go, Python, Kotlin, Java, C++, JavaScript, TypeScript, C, SQL, CSS, HTML
Tools and Frameworks: Git, Redis, Docker, Kubernetes, Flink, Kafka, Cassandra, Flask, Bazel, Express, React, Electron