

skills

Experience with backend engineering, distributed systems, databases, cloud infrastructure, and data engineering

Languages Python • Go • Ruby • JavaScript • TypeScript • C++ • C • SQL

Tools/Frameworks Kafka • Docker • Rails • gRPC • Airflow • Elasticsearch • CockroachDB • GraphQL • Node.js • React

education

University of Waterloo

Graduating April 2022

BASc in Computer Engineering

4x Dean's Honors List, Cumulative Average: 91.56/100

experience

Cockroach Labs Software Engineering Intern

[September 2020, December 2020]

- Added a sequence caching feature to CockroachDB resulting in a benchmarked 83% amortized improvement in speed and 67% less memory usage when performing bulk writes with sequence increments
- Built schema features by expanding the SQL parser, AST, and online schema change execution code written in Go
- Improved test coverage by extending a random SQL generator to create and verify transactional schema changes in Go

Shopify Backend Engineering Intern

[January 2020, April 2020]

- Built an asynchronous data exporting feature for large data sets facing 500+ app developers using **Rails & GCP** storage
- Developed metrics tracking features to actively record metadata from 300,000+ daily ads using **Ruby & Kafka** events
- Reduced the negative monetary impact of click fraud for app store ads by co-developing IP throttling features in **Ruby**
- Led the research and execution of adding static type checking to a large **Rails** project - featured on engineering blog

LCBO Software Engineering Intern

[May 2019, August 2019]

- Reduced page load time of a production app by >50% by implementing a client-side cache in a **JavaScript** serviceworker
- Secured sensitive APIs by developing **Node.js** middleware to support a RBAC strategy using **Azure AD** and **OAuth 2.0**
- Worked on a serverless ETL pipeline to parse and index thousands of spreadsheets into **MongoDB & Elasticsearch**

Bonfire Interactive Software Engineering Intern

[September 2018, December 2018]

- Improved file download security by building **Go** services to run virus scans on 100% of user-uploaded files in **Amazon S3**
- Reduced the quarterly support tickets by >350 by automating issue detection and resolution using **Python & Airflow**
- Developed analytics dashboards in a core application facing users from 400+ companies using **TypeScript & React**
- Built endpoints and tests for the company's core **Node.js API** responsible for managing millions of dollars in assets

Paralucent Inc Web Applications Engineering Intern

[January 2018, April 2018]

- Improved deploy time for a production app by >20% by developing a new CI/CD workflow using **Docker & Azure** services

projects

Buoy	Built a distributed key-value store backed by Raft, tolerant of node failures (Go & gRPC)	repo
Easy-Autocompleter	Created a thread-safe text autocompletion library backed by a LRU cache and trie (Python)	repo
Groupchat	Developed a real-time chat messenger server and client (Go, gRPC, GCP, Docker)	repo

leadership, community, & awards

UWWiSTEM	Volunteered to run coding workshops and speak at events in support of diversity in STEM	2020
UWBlueprint	Co-developed apps for NPOs in support of various causes including education and civil rights	2019
16 Weeks	Created videos for a YouTube channel with 700+ subscribers to give students internship advice	2019
Delta Hacks	Won a \$1200-valued prize out of 76 teams for making an <u>app</u> to fetch emergency medical info	2018

interests

Basketball • Board Games • Tech for Social Good • Running • Gaming • Cooking