GARY LI

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SKILLS

Languages	Java, JavaScript, Typescript, C, Go
Frontend	React, Material-UI, MobX, Redux
Backend	Spring Boot, Node.js, Express, OpenSearch, Kafka, PostgreSQL, Docker

EXPERIENCE

Software Developer Co-op — 01/2023 - 04/2023
D2L — *Toronto, ON*

- Leveraged **OpenSearch** in **Node.js** to store dense vectors and perform ANN searches for semantic similarity.
- Engineered Large Language Model powered prototypes with **React**, **MUI**, **Node.js** and **AWS Lambdas**.
- Initiated code coverage tracking for Lambda **Mocha** tests using **IstanbulJS**, bringing coverage from 60 to 90%.
- Improved internal access control by implementing OAuth2 for a **React** SPA with **Express** backend.

Software Developer Student — 05/2022 - 08/2022
BlackBerry — *Waterloo, ON*

- Implemented **Java Spring Boot** CRUD APIs and **Kafka** event streaming for **Docker** microservices with **Hibernate** and **PostgreSQL**.
- Developed **React** UI for the BlackBerry endpoint console with **Typescript**, **Material-UI** and **Redux-Saga**.
- Reduced microservice memory usage by closing an iterator leak and profiling KStream operations, resulting in a **32% reduction** per million handled Kafka messages.

Software Developer Student — 09/2021 - 12/2021
BlackBerry — *Waterloo, ON*

- Worked with a **microservice architecture** to implement performant APIs using **Java Spring Boot**, **Hibernate** and **Kafka streams**.
- Engineered a **10x React** tree render speedup for existing code by integrating large list virtualization.

Software Engineering Intern — 01/2021 - 04/2021
MentumQR — *Toronto, ON*

- Designed a real-time WebSocket order status page and menu editor using **React**, **Typescript** and **Redux**.
- Cached expensive **Go** backend endpoint calls to **S3**, resulting in a **3.5X** speedup in response time.
- Developed interactive Android kiosk screens with **Typescript**, **React Native**, **React Query** and **Recoil**.

OPEN-SOURCE CONTRIBUTIONS

- Linux GNOME projects **Nautilus** and **Evince** in **C** and **GTK**.
  - Reported and fixed multiple bugs and crashes using **gdb**, **rr**, **AddressSanitizer** and **Valgrind**.

PROJECTS

SemesterShare.com time table social platform

EquationSpace.com real-time collaborative graphing calculator

EDUCATION

Candidate for BASc in Honours Computer Engineering, Co-op, University of Waterloo   Expected 2025