

Selina (Qian) Li

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Skills

- **Languages:** Java, C#, C, C++, JavaScript/TypeScript, Verilog, VHDL, Assembly, SQL
- **Technologies:** ElasticSearch, Google Cloud Dataflow, GCP Pub/Sub, AWS Lambda, Redis
- **Tools:** Apache Beam, Apache JMeter, Kubernetes, Spring Boot, ASP.NET, Servlet-JSP, Google Analytics

Work Experiences

Backend Developer Co-op | Loblaw Digital

Jan - Apr 2022 | *ElasticSearch, Google Cloud Dataflow, GCP Pub/Sub, Apache Beam, Kubernetes*

- Maintained microservices that query data from **ElasticSearch** clusters and personalize search results, and communicated with cross-functional teams on design and optimization
- Developed Google Cloud streaming and batch **dataflow pipelines** using Apache Beam to integrate Google Cloud Pub/Sub event-driven data from multiple sources to enrich ElasticSearch clusters

Software Developer Co-op | University of Waterloo

May – Aug 2021 | *ASP.NET, Microsoft SQL Server, AngularJS, Talent API Tester*

- Took full responsibility for the design and development of historical data system on the faculty's web application, that allows admins to search archived data for each semester and export requested data
- Refactored over 20% of the codebase to improve reusability by compositing services and endpoints

Software Developer Co-op | University of Waterloo

Sep – Dec 2020 | *ASP.NET, Microsoft SQL Server, AngularJS, Talent API Tester, Bootstrap*

- Built email notification microservices that automatically generates emails based on user-imported templates and send generated emails to filtered recipients through the SMTP protocol
- Optimized algorithms of SQL by using temporary tables to speed up query execution by over 3 times

Software Developer Co-op | Dealer-FX

Jan – Apr 2020 | *ASP.NET, Microsoft SQL Server, Angular 8, Google Analytics, AWS Lambda*

- Developed **AWS Lambda** handlers to process Amazon SQS messages and redirect processed events to VPC-specific Lambdas, with monitoring events and logs through AWS CloudWatch
- Implemented health checks into an ASP.NET API to test the app's dependencies and availabilities

Backend Developer Internship | XYebank

Jun - Aug 2019 | *Redis, SpringBoot, JUnit, Postman, Apache Maven, Apache JMeter*

- Optimized runtime by 50 times by implementing database query caching using **Redis**, to reduce data access latency and ease the load off MySQL, and load tested API behaviours using Apache Jmeter

Personal Project

Brute-Force Attack Protection Login | *SpringBoot, Redis, JUnit, Postman*



- Developed a RESTful API in Spring Boot with Redis, that will lock out accounts for 15 minutes after exceeding 5 consecutive unsuccessful login attempts to block brute-force attacks

Education

University of Waterloo

Bachelor's of Applied Science, Computer Engineering

Sep 2019 – Apr 2024

Waterloo, ON, Canada