

Selina Li

✉ q339li@uwaterloo.ca |  github.com/Selinaqianli |  linkedin.com/in/qian-selina-li/ |  selinaqianli.github.io/

Skills

- **Languages:** Java, C#, C++, C, Python, JavaScript/TypeScript, HTML, CSS, SQL(MS Server, MySQL)
- **Technologies:** ElasticSearch, Dataflow, AWS Lambda, Spring Boot, ASP.NET, Angular, Servlet-JSP
- **Tools:** Apache Beam, Apache JMeter, Google Cloud Platform, Google Analytics, Kubernetes, Redis

Work Experiences

Backend Developer Co-op | Loblaw Digital

Jan - Apr 2022 | *ElasticSearch, Dataflow, Apache Beam, Google Cloud Platform, SpringBoot*

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

Software Developer Co-op | University of Waterloo

May – Aug 2021 & Sep – Dec 2020 | *ASP.NET, Microsoft SQL Server, AngularJS, Talent API Tester, Bootstrap*

- Took full responsibility for the design and development of a historical data system, that allows admins to search archived data for each semester and convert selected data into EXCEL sheets
- Redesigned and refactored codebase to **improve code reusability** by encapsulating generic types and compositing endpoints, and speed up query execution by optimizing algorithms of stored procedures

Software Developer Co-op | Dealer-FX

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

- Handled Amazon SQS message events by developing **AWS Lambda** handlers, regrouping and redirecting events to VPC-specific Lambdas, with monitoring events and logs by AWS CloudWatch
- Implemented **health checks** into an ASP.NET API to test the app's dependencies, including databases and external service endpoints, to confirm availabilities and normal functioning

Backend Developer Internship | Xyebank

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

- Developed endpoints and unit tests for a SpringBoot API, which emails clients using the SMTP protocol
- Utilized Redis in **database query results caching**, optimizing runtime by over 90%, to reduce data access latency and ease the load off MySQL, and load tested the API behaviour using Apache Jmeter

Personal Project

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



- Designed and 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