

Frank Liu

Contact Info

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Technical skills

Web Development:

React/Vue/Angular
JavaScript/Typescript
Express.js
Spring
Node.js
HTML/CSS

Programming Languages:

JavaScript/TypeScript
Python
Java
Bash
C/C++

Tools & Technologies:

Git
SQL/NoSQL
Visual Studio
Docker
Kubernetes
Elastic Stack

Achievements

Nominated for Co-op Student of the Year 2020

Education

Carleton University

September 2017 – April 2022
Bachelor of Engineering,
Software Engineer (Co-op)
GPA: 11.0/12 (A)

Languages

English
Chinese
Japanese
Spanish

Work Experience

Red Canari | Ottawa, Ontario

05/2021 – 09/2021

Software Developer & Hacker

- Developed and commercialized *RegenX*, a web tool that generates customized reports based on report schemas, using **React**, **Couch/PouchDB (NoSQL)**, and **Spring Reactive**
- Assembled a proxy database for runtime datatype analysis and version controlling through hooks, which uncovered over **40** data integrity issues/bugs
- Contributed to the open-source software *Jinjava*, a software that implements the templating engine *Jinja* in Java
- Collaborated with the CEO and the marketing director to promote *RegenX* by providing technical support and use cases
- Took the initiative to create onboarding resources and train new co-ops

Ericsson | Ottawa, Ontario

05/2020 – 04/2021

Network Verification - Co-op Developer

- Developed a proxy server written in **Angular**, **PostgresDB**, and **Spring Boot**, which is for network data version control and data transformation
- Facilitated network simulation by leading development of a service using **Java** to batch process and feed data to 5G network labs
- Performed load tests that support up to **50GB** of data, aggregated results, and identified scaling bottlenecks
- Auto-generated over **30** pages of Network Entities APIs by creating Excel sheets, graphs and Json Schemas from datasets
- Created **Python** scripts to validate Json Schemas against network entities fetched from **Kubernetes**, which found over **5000+** instances of structural-inconsistencies
- Refactored and enhanced Nginx and **Docker** configuration files to enable remote deployment on Windows and Linux

Kinaxis | Ottawa, Ontario

05/2019 – 08/2019

Software Developer Data Server

- Led development of a website written in **Vue**, **Express**, and **SQLite** which fetches datasets, and creates graphs through the **Elastic Stack** endpoints and visualizes them on a dashboard

Carleton University | Ottawa, Ontario

05/2018 – 08/2018

Systems Engineering Faculty - Software Developer

- Implemented a program in Java that allows transferable datasets used for machine learning between **DL4J** and **Keras** frameworks
- Redesigned *Java Learning by Observation Framework*, increasing speed, scalability, and extensibility

Projects

Math and Latin Input Method | Ottawa, Ontario

10/2021 – Current

Project Manager

- Working with other students on a machine learning algorithm to recommend Math and Latin symbols according to user input