Diana Shi

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Technical Skills

Languages: C/C++, Java, Python, HTML/CSS, JavaScript, SQL, Swift
Technologies/Frameworks: Vue/Vuex, React, Spring Boot, Hibernate, Microsoft SQL Server, MySQL, REST APIs, Liquibase, Bootstrap, Linux, Flask
Developer Tools: IntelliJ, DataGrip, Eclipse, GitHub, Bitbucket, Jira, Google Maps Platform

Experience

Full Stack Developer — May 2022 – August 2022
CI Technologies — *Vancouver, BC*

- Designed and implemented a full stack solution for **authentication** and related authenticated functionality to an existing web application
- Configured **Spring Boot application** to work with two login pages (Normal user and administrator) via **HttpSecurity configuration**
- Implemented advanced search APIs utilizing **Hibernate Query Language (HQL)** and proprietary abstraction built above HQL
- Created **Data Transfer Objects** to encapsulate data and parameters for method calls and maintained the **Controller-Service-Repository pattern**
- Implemented **user-interface** and **user-experience** for several core application pages based on **Figma mockups**
- Maintained and improved existing **RESTful interface** for front-end consumption
- Implemented application database schema migrations via **Liquibase** scripts in **YAML** format
- Wrote 200+ **automated integration tests** for **REST API** to ensure implementation of service logic was performed correctly across various edge case inputs

Full Stack Developer — Sept 2021 - Dec 2021
CI Technologies — *Vancouver, BC*

- Used **Hibernate ORM** framework for data persistence related functionality - created **POJO classes** and mappings using **Hibernate annotations** such as @Entity and @ManyToOne
- Handled the **HTTP requests and responses** using **Controller-Service-Repository** pattern
- Implemented application database schema migrations via **Liquibase** scripts in **SQL** format
- Implemented 30+ configurable features on several existing projects, at the core of which included functionality for generating **Twilio API tokens**, and implementing a set of reporting/analytical features
- Migrated an existing project from **Java 10/11** to **Java 17** which improved **backend performance** and mitigated several **security vulnerabilities**

Projects

GasMap | *Swift, GitHub* — Sept 2022

- Implemented an **iOS mobile app** with **Google Maps Platform** that displays the locations of the gas stations near the user's current or searched locations
- Integrated **Google Map API** with Moya and **Google Places** to build location search and access data for nearby gas stations
- Used **MVVM design pattern** to utilize code reusability and enrich UI design with the backend functionality
- Constructed Views using **Storyboard** and **XIB files**

Biquadris | *C++, GitHub* — August 2021

- Developed a two player Tetris based Biquadris game with **C++** and **OOP concepts** which can be run on terminal with X-Window display
- Used **polymorphism**, **encapsulation** and various design pattern for reusable and maintainable code
- Utilized the **Observer Design Pattern** and **Decorator Design Pattern** to manage game display and special features

Education

University of Waterloo — Sep. 2020 – April 2025 (Expected)
Bachelor of Computer Science, Artificial Intelligence Specialization — *Waterloo, Ontario*

- **Excellent Standing** for all full-time academic terms
- President's Scholarship of Distinction
- Relevant Coursework: Data Structure and Management, Object-oriented Software Development, Foundations of Sequential Programs, Computer Organization and Design, Computer Architecture, Operating System