Diana Shi

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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, GCP, Jenkins, Kubernetes
Developer Tools: IntelliJ, DataGrip, Eclipse, GitHub, Bitbucket, Jira, Google Maps Platform

Experience

Software Engineering
January 2023 - April 2023
Ultimate Kronos Group - Ultimate Software *Toronto, ON*

- Modernized a monolithic legacy Java codebase into a containerized **Microservices** model, wrote **Lower-level design** documentations for utilizing **application service platform components** to achieve enhanced application scalability
- Implemented the **Factory Pattern** and the **Bridge Pattern** to create service objects at runtime and decouple logical service interfaces from implementation details in a microservices architecture
- Refactored **Gradle** dependencies, resulting in streamlined development processes and improved build time by **11%**
- Deployed the application environment on **Jenkins** and **Google Cloud Platform (GCP)** using **Kubernetes** to ensure software integrity after code modernization
- Wrote comprehensive unit and integration testing strategies using **JUnit** and **Mockito** to ensure high code quality and full test coverage

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

- Designed and implemented a full stack solution for **authentication** to an existing web application by configuring **Spring Boot application** to work with two login pages via **HttpSecurity configuration**
- Implemented advanced search APIs utilizing **Hibernate Query Language (HQL)** and proprietary abstraction built
- Created **Data Transfer Objects** to encapsulate data and parameters for method calls and maintained the **Controller-Service-Repository pattern**
- Maintained and improved existing **RESTful interface** for front-end consumption
- Implemented application database schema migrations via **Liquibase** scripts in **YAML** and **SQL** 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
September 2021 - December 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 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

WatCarPool | *Python, JavaScript, MySQL, GitHub*
December 2022

- Developed a full-stack web application in **JavaScript**, **Python** and **MySQL** for the database to provide a carpooling platform for drivers and passengers in the Ontario region
- Created UI in **React** and implemented backend APIs in **Flask** to enable users to browse, join, and create trips

GasMap | *Swift, GitHub*
September 2022

- Developed an iOS mobile app with **Google Maps Platform** and integrates **Google Maps API** with Moya and **Google Places**, enabling users to search for nearby gas stations and view their locations on a map
- Used **MVVM design pattern** to utilize code reusability and enrich UI design with the backend functionality

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
- Relevant Coursework: Data Structure and Management, Object-oriented Software Development, Foundations of Sequential Programs, Computer Organization and Design, Computer Architecture, Operating System