



Matthew Hao

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Skills

Languages: Java, C/ C++, Kotlin, Python (Less Experience): Golang, PHP, JavaScript, Typescript, HTML, CSS

Frameworks and Technologies: Spring, Spring Boot, MySQL, PostgreSQL, MS SQL Server

Tools: Git, Docker, Postman, Jenkins, Maven, Linux, Jira, Confluence

Experience

PointClickCare – Software Engineer

Jan 2023 – Apr 2023

- Designed and implemented an API endpoint with dry run functionality for reingestion of a list of patient resources using **Kotlin** and **MS SQL Server**, leading to an over **100%** reduction in ingestion time of individual patients
- Reworked **SQL** queries to fetch provenance data from **MS SQL Server** and created provenance resources using **Kotlin** including test cases, for over 10 resources, to comply with FHIR standards
- Updated various **Maven** dependency versioning while maintaining application functionality and performance to resolve over **15 critical, 30 high and 20 moderate** security vulnerabilities

Zynga – Software Engineer, Core Architecture

May 2022 – Aug 2022

- Designed and implemented a code coverage report framework for Storage service using **PHP** as part of Storage rewrite, identified unnecessary code and improved code quality of rewritten service
- Implemented an integration test suite for Storage service using **Golang** to validate functionality of rewritten service and increased code coverage by over **80%**
- Incorporated Minio into Dockerized development environment to emulate **AWS S3** functionality and tested archive restoration using the **AWS Golang SDK**

OpenText – Software Developer, Core Case Management

Sept 2021 – Dec 2021

- Architected, designed and implemented global dropdown list feature following **Microservices** and **MVC design** patterns using **RESTful APIs** in **Java** with **Spring Boot** and **PostgreSQL**, and tested APIs using **Postman**
- Resolved over a **dozen** user stories and tickets across frontend and backend case management applications involving **Typescript, Java, Spring Boot**
- Actively contributed to sprint planning, design meetings and sprint retrospectives in **Agile SDLC** process

OMERS – DevOps Engineer

Jan 2021 – Apr 2021

- Implemented 3 scripts in **Java** and **Python** to validate OMERS' user account data with considerations for business requirements and efficiency optimization
- Led team in **Agile** design and creation of Validity Check data transfer tool for migration of over **250 000** production user accounts to new PingIdentity database

Projects

Realtime Operating System Implementation – C

June 2023 – Aug 2023

- Designed and implemented a multi-tasking kernel with built-in memory allocation, inter-task communication, and console I/O for **ARM** processors in **C**, using a highest-priority scheduling algorithm supporting pre-emption and blocking

Education

University of Waterloo

April 2025 (Expected)

Candidate for B.A.Sc in Computer Engineering