Rickson Yang

Software Engineering • Unix Enthusiast

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Skills

Languages   Java • TypeScript • JavaScript • Python • SQL • HTML • CSS
Technologies   Node.js/Express • React • Hibernate ORM • MongoDB • Docker • GCP • Heroku • Git

Experience

Axonify
Java Developer   *January 2021 - April 2021*

- Developed core server backend with **Java**, **MySQL**, **Hibernate ORM**, and **Jetty**
- Reworked and optimized a user metrics refresh system tracking **7,000,000+** records by using a periodic job scheduling system, improving average runtime from **3-4 hours** to **1-5 minutes**
- Worked concurrently with a client developer to integrate pagination and filtering on the platform, reduced load time by **70%**
- Implemented resource management tools with Java **MBeans** to easily resolve support issues with SCORM modules
- Migrated schema changes and backlogged existing records using **Liquibase** and Blue-Green deployment to reduce downtime
- Used **Mockito** and **AssertJ** to write self-documenting and thorough test cases for new features

DigitalEd
Fullstack Developer   *May 2020 - August 2020*

- Developed courseware platform using **Java** and **Apache Struts** and modernized old JSP frontend with **Vue.js**
- Researched and built a document converter prototype that converts DOCX files into interactive lessons on the platform
- Created utility **Docker** scripts, improved engineering workflow by reducing manual intervention and commands by **75%**
- Spearheaded new **Cypress** workflow to automate **1000+** manual tests, reduced relative testing time by over **80%**

Projects

Discourse ⌂ ⌂
Platform for live collab-coding

- Built and deployed a full-stack web application that allows users to create public/private rooms and code together
- Emulated real-time interactions between users using **Socket.IO** for room sessions, chat, and notifications
- Implemented a REST API server with **TypeScript**, using **JWT** to connect user-room sessions and establishing CRUD systems

Gyroll Maze ⌂
ball labyrinth game with gyroscope controls

- Integrated a maze generation algorithm with interactive objects such as spike balls onto a tilt-controlled platform with **C#**.
- Built and integrated a game controller with angular/tilt-based controls from scratch, using C# and **Arduino** scripts.

Orgmodoro ⌂
Minimal Android Pomodoro app

- Designed schematics and built an intuitive UI workflow with **XML** and **Android Studio**.
- Built multiple activities/windows to allow data transfer between background processes using **Java**.

JavaPaint ⌂
Full-featured paint program from scratch

- Built a fully-featured drawing application using the **Swing API**, including saving features, program settings, and more.
- Implemented and integrated **undo/redo stacks**, shapes, and toolbars with several data structures created from scratch.

Education

University of Waterloo
Software Engineering   *2019 - 2024 (expected)*

- GPA of 89%