

Rui Zhu

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3205 Uplands Drive Unit # 9 | K1V 9T3

EDUCATION

Bachelors of Computer Science Honours

Sept 2016 – Apr 2021

Carleton University, Ottawa, ON

- 10.9/12.0 CGPA
- Deans List 2016 – 2018

WORK EXPERIENCE

Software Engineer

May 2019 – Aug 2019

Capital One, Toronto, ON

- Upgraded RESTful API from Spring 4 to Spring Boot 2, improving code maintainability and currency
- Added performance increasing modifications such as object pooling for encryption/decryption classes
- Implemented new features in API backend to improve usability
- Created unit tests and integration tests using MockMVC, Wiremock, embedded H2 DB, and Mockito
- Maintained existing tools such as ATDD environment with Cucumber, and resiliency with Hystrix

Front End Developer

Sept 2018 – Dec 2018

Ross Video, Ottawa, ON

- Used JS and third party libraries like JQuery to implement new features for customers such as a video player.
- Wrote Java upgrade scripts for version changes within the product that would update the database.
- Improved UX on touchscreen devices

Software Test Engineer

May 2018 – Aug 2018

Gemalto, Ottawa, ON

- Wrote performance testing scripts using python and java to automate retrieval of data into various formats (xml, csv)
- Wrote queries using SQLAlchemy to communicate with PostgreSQL database
- Created a web app using JQuery to run and display comparisons between data sets, improving website usability
- Computed statistics from data sets, which were then sent to the front end through a Flask route

Teaching Assistant

Sept 2017 – Dec 2019

Carleton University, Ottawa, ON

- Helped students understand bugs with their code by running through their code with them
- Explained to students various design patterns and data structures/algorithms in Java/Python

PROJECTS

Matrix Calculator

React, Javascript

- React SPA that performs matrix operations on user input
- Fraction support, and input validation of correct format

T3D

Java

- Pseudo-3D tower defence game using raycasting to render walls and entities
- Used A* to implement simple path finding of enemies

SKILLS

Programming Languages	Javascript, Python, Java, C, C++, Bash
Technologies & Frameworks	Spring Boot 2, Spring 4, Wiremock, Cucumber, H2, MockMVC, Mockito, JQuery, ReactJS, NodeJS, VueJS, PostgreSQL, Hibernate, MySQL, SQLite, MongoDB, Flask
Tools	Git, Docker, SVN, GCC, GDB, Valgrind, nix