

Merlin Zhao

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EDUCATION

Bachelors of Computer Engineering with Co-op

McMaster University

September 2016 - April 2022

PROFESSIONAL EXPERIENCE

Software Developer, IBM

May 2022 - Present

- Designed and implemented 20+ multi-platform end-to-end tests with Appium and WebdriverIO for iOS and Android
- Conducted Node and dependency upgrades for 4 repositories, ensuring proper code functionality through regression checks

Software Developer Intern, IBM

May 2021 - April 2022

- Established parallel pipelines in Jenkins and reallocated sever loads, improving reliability and reducing automation runtime by 15%
- Assisted in app release management through updating servers, sanity checks, and deploying to production
- Enhanced React Native codebase through refactoring components, addressing SonarQube errors, and reducing code complexity

Validation Engineer Intern, AMD

May 2020 - April 2021

- Thoroughly improved Python scripting performance by optimizing algorithms, reducing runtimes from 12+ hours to 5 mins
- Responsible for SQL database administration and optimization, increasing query performance by 20%
- Collaborated with chip designers to develop triaging tools to facilitate faster design verification
- Maintained team's automated regression testing; built upon Ruby on Rails, Perl, Python and MySQL

Front End Developer Intern, MenloLab Inc.

May 2019 - August 2019

- Developed interactive web elements to visualize large data sets using Vue.js and the D3 library
- Implemented JavaScript data type validation, error and edge case handling; reducing client-side downtime by 45%
- Improved rendering and parsing performance by 10% through optimizing JSON structures

PROJECTS

Rapid Pass, ECE capstone project

- Managed 4 engineers in order to conceptualize solutions, oversee testing and implementation, and maintaining strict deadlines
- Developed and deployed a flexible and scaleable REST API built upon Node.js and Express
- Designed a MySQL database hosted by Google Cloud in order to store user and transactional data
- Integrated Bluetooth hardware through Python with a cloud database and React.js web application

merlinzhao.me, Personal web portfolio created with Vue.js

- Optimized code readability through utilizing Vue components, resulting in a 25% reduction in code
- Utilized latest web standards and formats; ensured cross-browser compatibility

NavText, Placed second overall at Hack Western

- Established an iOS travel application using Swift, StdLib, MessageBird along with Google Maps, Uber, and Weather Network APIs to deliver essential information through SMS
- Led a team of 4 to deliver a productionized product and an engaging presentation, resulting in a second place overall position

Space Escape, Inspired by the retro arcade game 'Galaga'

- Developed a multiplayer shooter game using Python and Pygame library; built upon the concept of object oriented programming
- Created custom animated assets to enhance the gameplay experience

SKILLS

Languages: Python, JavaScript, Java, HTML, CSS, MySQL

Frameworks: Vue.js, React.js, Node.js