CHARLIE ZHANG

2B SOFTWARE ENGINEERING

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WORK EXPERIENCE

Teal Software, Software Developer Intern — Jan – Apr 2017
ES6, React, Alt, Meteor, Neo4j, Mocha — Kitchener, ON

- Led the design and development of major features on the web app including free product trials, new user onboarding, and a profile page revamp
- Improved front-end performance by an average of 50% through minimizing render calls and reducing expensive SVG filter rendering
- Reduced load speeds by up to 90% through database query optimizations
- Improved security and stability by removing server reliability on client data and implementing injection attack prevention measures and rate limiting
- Implemented an automated testing suite using Mocha, Chai, and Sinon and wrote idempotent integration tests
- Researched and delivered an MVP of Jira integration with the web platform using the Atlassian API

Vena Solutions, Software Developer Intern — May – Aug 2016
Java, Jetty, Jersey, MySQL, JavaScript, Backbone, PHP — Toronto, ON

- Implemented customer requested features including data visualizations, workflow optimizations, and mobile responsiveness enhancements
- Developed an expansion to a large-scale feature by implementing a MySQL schema upgrade, RESTful API refactors, and new UI elements
- Wrote detailed API and unit tests using Postman and JUnit
- Built and launched a new careers site from the ground up by developing a custom WordPress theme and integrating with JazzHR

Mikutech, Game Developer Intern — Oct 2013 – Aug 2014
PHP, ActionScript 3, Redis — London, ON

- Developed a PHP web app that processed, formatted, and displayed error logs from a Redis server
- Deployed a PHP service that sent daily and weekly email reports about time and resource allocations retrieved through the FogBugz API
- Developed the UI and cutscene mechanics of an in-house puzzle game

PROJECTS

Star Stream — Java, Android, libGDX
A space shooter mobile game featuring levels filled with unique enemies, power-ups, different player ships, ship upgrades, and a clean UI

Airband — C#, Unity, Node.js, socket.io
A Unity game where you can play virtual instruments in real time with others through web sockets using Leap Motion's hand tracking

Know Yourself — Angular, Express, Facebook SDK
A web app that uses algorithms and sentimental analysis to analyze and process your profile data and display interesting statistics

SKILLS

Languages
JavaScript (ES6), Java, PHP, Scala, SQL, C++, C

Web Development
React, Angular, Backbone, Alt, Meteor, Mocha

Backend Development
Node.js, Express, Neo4j, MySQL, MongoDB

Tools
Git, Bash, Webpack, Vagrant, Eclipse, IntelliJ, Unity

EDUCATION

Software Engineering
University of Waterloo
2015 – 2020

ACTIVITIES

SHAD Fellow
SHAD Waterloo 2015

- Led the website development of the winning team

AWARDS

Winner, People's Choice
WearHacks Waterloo 2017

- For work on Airband

Top 10 Hacks
EngHack 2015

- For work on a Myo armband controlled rhythm game

INTERESTS

Game development
Cheap and healthy cooking
Video games
Jazzhop and acapella
Piano