

Zhidong(David) Zhang

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EDUCATION

UNIVERSITY OF WATERLOO

3A COMPUTER ENGINEERING
SOFTWARE ENGINEERING OPTION
Expected 2020 | Waterloo, ON

SKILLS

DEVELOPMENT:

JavaScript • Node/Express • Angular
React • Python • Java • C/C++
HTML • CSS • Mocha • Chai
Tape • Nock • Git • SVN

INFRASTRUCTURE:

Redis • Docker • AWS • PostgreSQL
MongoDB • Jenkins • Elastic Beanstalk
EC2 • S3 • VPC
Windows • Linux • Bash

COURSEWORK

Compilers
Operating Systems
Algorithms & Data Structures
Project Management
Probability Theory and Statistics
Digital Hardware Systems
Embedded Microprocessor Systems
Digital Computers
Eng. Design, Embedded Systems

LINKS

Github:// [DavidMouse1118](https://github.com/DavidMouse1118)
Website:// davidmouse1118.github.io
LinkedIn:// [david-zhang](https://www.linkedin.com/in/david-zhang)

EXPERIENCE

GENESYS | SOFTWARE DEVELOPER

Jan 2018 – Apr 2018 | Markham, ON

- Designed **continuous integration pipeline** that executes static code analysis, performance profiling, and integration tests, reducing release cycle time by 70%
- Leveraged **Jenkins 2** to create fully automated staging and production pipelines. Explored deploying Docker containers
- Automated server deployments and processed test results with Bash scripts

IBM CANADA LIMITED | BLUEMIX DEVOPS SOFTWARE DEVELOPER

May 2017 – Aug 2017 | Markham, ON

- Developed **distributed resilient caching** layer with **Redis** to reduce Node.js server latency by 5x
- Implemented Cache-Aside pattern to handle cache misses. Utilized **Circuit-Breaker** and **Retry design patterns** to handle transient faults
- Implemented asynchronous callbacks for read/write operations
- Parallelized execution of integration tests using Node.js Child Processes with Tape and Nock, decreased runtime by 6x.

PITSTOP | FULL STACK DEVELOPER

Sept 2016 – Dec 2016 | Kitchener, ON

- Developed RESTful API server that enables asynchronous operations with **Node.js**, **Express**, **bluebird promises** and **Swagger**
- Implemented real-time data visualization dashboard with **React** and Highchart
- Designed **PostgreSQL** database and performance tuned SQL queries to reduce read/write latency time by 3x
- Deployed projects to AWS Elastic Beanstalk and EC2 instance, improving scalability

OPEN TEXT | SOFTWARE DEVELOPER

Jan 2016 – Apr 2016 | Waterloo, ON

- Developed first release of mobile version of a flagship product with **Angularjs**, **Cordova**, and **Ionic Framework**
- Automated UI tests with Selenium Webdriver, using Page Object and Page Factory Pattern
- Wrote JUnit tests to validate RESTful API endpoints

SELECTED PROJECTS

VCHAT | VIDEO CHAT APP

- Developed live-stream video chat app that leverages the RTC protocol
- Built client/server architecture with React, Redux, Node.js, Socket.IO, and WebRTC

OH MY FISH | TORONTO FISHACKATHON 2016

- Led team of 4 developers to build a hybrid mobile app for anglers to record catches based on GPS location
- Built front end dashboard and interactive fishing maps with Ionic and Google Maps API,
- Used **MongoDB's geospatial querying** and **Mongoose Query Builder** to enable radius search