

Fred (Qinmao) Zhang

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Portfolio Website: <https://fredzqm.github.io>

GitHub: <https://github.com/fredzqm>

Education: *B. S. in Computer Science, Software Engineering and Computer Engineering*

Rose-Hulman Institute of Technology, Terre Haute, IN

Major GPA - 4.0/4.0

Minors: Math, Data Science and Economics

Related Courses: Hadoop Ecosystem, Introduction to Distributed Systems, Deep Learning, Formal Methods, Android Development, Operating Systems, Programming Language Concepts, Theory of Computation

Skills: Java, C++, JavaScript (TypeScript), Python, Ruby, Hadoop, Docker, MySQL, Firebase, Angular, React, Android, Spring Boot, MATLAB

Experience: **Groupon**

June 2017 - Aug 2017

Software Development Intern - Getaways Inventory Supply [MySQL, Redis, Java, Ruby]

- Designed new workflow to improve query performance and increase specificity of queries
- Restructured database to support finer grained data access to Getaways inventory products
- Implemented and tested new endpoints for use by Deal Service with full localization support
- Migrated data from external service with feature flag and emergency rollback plan

Chess Grandmaster

June 2016 - Aug 2016

Personal Project - [Java, Angular, Firebase]

<https://goo.gl/pGndFA>

- Designed *Chess Project* in Java that supports complete Chess rules and records
- Built the Angular front end, now hosted on GitHub Pages
- Implemented a Chess server that updates web app through Firebase

Path Finder

June 2016 - Aug 2016

Course Project - [Java, Hadoop, Hive, Pig, Oozie]

<https://goo.gl/EoKZnQ>

- Imported Chicago Map data from *OpenStreetMap* with [OSM2Hive](#)
- Designed an algorithm to compute shortest travel distance matrix at various zoom levels
- Implemented Pig UDF to deserialize and batch process map data

UML Generator

June 2016 - Aug 2016

Course Project - [Java, Graphviz]

<https://goo.gl/FNKUTv>

- Implemented *UML Generator*, a static code analyzer that builds UML diagrams of any Java project
- Implemented a [JVM Type Signature Parser](#), along with common pattern detectors
- Created a configuration framework for style customization and user-defined pattern detector

Jobee

June 2016 - Aug 2016

Personal Project - [Android, Java, Gradle]

<https://goo.gl/RmLn9p>

- Designed and built *Jobee*, an Android app designed for recruiters to collect resumes
- Researched and integrated [zxing QR Code](#) and Firebase Cloud Messaging with the app

Honors: Eta Kappa Nu (HKN), IEEE National Honor Society
Alpha Lambda Delta (ALD), National Freshman Honor Society
Tenth place in ACM ICPC Mid-Central Contest 2016