Frank Tianyu **Zeng**

SEEKING ENTRY LEVEL SOFTWARE ENGINEER POSITION

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Education

University of Wisconsin - Madison *Madison, WI*

B.S. IN COMPUTER SCIENCE AND STATISTICS. GPA: 3.3/4.0 *Jan. 2016 - Dec. 2019*

- **Relevant Coursework:** Algorithm, Data Structures, Software Engineering, Database, Computer Graphics

Skills

Languages Java • Python • SQL • JavaScript ES6 • HTML • CSS • C/C++

Tools Git • MySQL • Spring Boot • Vue.js • Postman • Scrapy

Work Experience

UW-Madison (HelpCare Connect Lab) *Madison, WI*

FULL STACK SOFTWARE DEVELOPER *Aug. 2018 - May. 2019*

- Designed and deployed back end **RESTful APIs** by teaching myself **PHP** to perform CRUD functions.
- Refactored the codebase to improve maintainability, optimizing query operations by adding index to enhance range search.
- Implemented a Naive Bayes model in **Python** to predict psychological risk and achieved 82% accuracy.

CUNA Mutual Group *Madison, WI*

DATA SCIENCE INTERN *May. 2018 - Aug. 2018*

- Created an internal dashboard that was adopted by managers to visualize results from sentiment analysis.
- Implemented a GBDT model to predict the severity of insurance claims and reduced MSE by 15%.
- Performed feature engineering on large data sets in **Spark** to facilitate the development of statistical models.

Projects

PM Tool (`https://fzpmtool.herokuapp.com`) *Madison*

INDIVIDUAL PROJECT *Jun. 2019 - Jul. 2019*

- Developed a project management application using **Java** and **Spring Boot** that allows users to easily create and manage ongoing projects by categorizing priority.
- Designed **RESTful Web Services** and incorporated persistent data storage with **MySQL** to retrieve projects.
- Integrated **Spring Security** and **JWT Web Token** to validate the user's authentication.

Post Wall (`https://geo-postwall.firebaseapp.com`) *Madison*

INDIVIDUAL PROJECT *Jul. 2019 - Jul. 2019*

- Implemented a dynamic single page web application that enables users to share their stories with other users through a map.
- Designed the front end using **Vue.js** and **JavaScript** to stylize the app and manage states.
- Integrated Google Map API directly into the app to mark users' locations after logging in.
- Developed the back end system in **Firebase** to authenticate users and show comments in real-time.

Web Crawler *Madison*

INDIVIDUAL PROJECT *Jul. 2019 - Jul. 2019*

- Implemented an incremental web crawler that scrape books information with **Scrapy** and **Python**.
- Applied the Bloom Filter to optimize duplicate content detection using Redis Bloom DupeFilter.
- Enabled massive data storage in a non-relational database MongoDB.