

Qizhen Guo

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Education

Rice University, Houston, Texas

Aug 2017 - Dec 2018

Master of Science in Computer Science

GPA 3.7/4

Sun Yat-Sen University, Guangzhou, China

Sep 2013 - Jul 2017

Bachelor of Engineering in Software Engineering

GPA 3.6/4

Skills

Programming Languages: C/C++, Java, JavaScript (Node.js, jQuery), CSS, HTML, SQL, Rust
Frameworks/Tools/System: AngularJS, React, Linux, Git, MongoDB

Work Experience

Software Engineer Intern, Electronic Arts Inc. - Austin, Texas

May 2018 - Aug 2018

- Designed and implemented a live operations dashboard with AngularJS framework and Highcharts JS API, improving DB engineers' working efficiency by 14% and analysts' efficiency by 9%.
- Used Semantic UI to create a fully responsive UI layout, implementing mobile versions where needed. Created a custom pipeline to filter specific attributes.
- Used time-series KairosDB to store numeric data while at the same time published real-time data over web socket and allowed for historical data to be accessed via Lighthouse API.
- Built the server to aggregate non-numeric data using Spring Boot and implemented cache system to reduce average system response time from 2 minutes to 17 seconds.

Projects

Compiler for ILOC

Feb 2018 - Apr 2018

- Built a scanner and parser with the flex scanner and the bison parser generator to check syntax errors for a given code.
- Implemented an optimizer decreasing around 10% compile time of codes based on loop unrolling and local value numbering.

Full Stack YelpCamp Web Application

Dec 2017 - Jan 2018

- Used Express and Node.js to build the back-end with MongoDB for data management.
- Implemented responsive front-end using Bootstrap framework and EJS templates.
- Implemented authentication for users' signing up and logging in/out using Passport.js middleware.

Online Chat Application

Sep 2017 - Nov 2017

- Implemented application view by Java Swing and constructed extensible platform by using MVC architecture. Using Java Remote Method Invocation (RMI) for data package exchange.
- Utilized the extended visitor design pattern and message passing design architecture to handle the packets passing between server and client.

iRunning

Aug 2017 - Oct 2017

- Designed and implemented a running mobile application based on Android with more than thirty thousand downloads and maintained 0% crash rate after rolled out.
- Took use of Gaode Map Android SDK to record the user's running track.
- Developed algorithm based on clustering methods (KNN) and classification methods to increase the accuracy of indoor positioning systems.

Public toilet navigation system based on Android

Apr 2017 - Jun 2017

- Implemented the map API interface to design the public toilet navigation system with destination search, optional path planning and text and music appreciation functions.
- Retrieved article from multiple websites by using Jsoup toolkit. Modified the raw data with regular expression and saved in JSON format.