# QU(Q) YUAN

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## **EDUCATION**

M.S. in Information Systems Management, Washington University in St. Louis, GPA:3.88/4.00 Sep. 2018 - Dec.2019
B.S. in Finance and Banking, Shanghai Ocean University, GPA:3.67/4.00 Sep. 2013 - Jul.2017

# **SKILLS**

- Programming Languages: Java, JavaScript, SQL, Go, Python
- Database/Data analytics: MySQL, MongoDB, R, Redis
- Web Development: Java Servlet, AngularJS, Node.js, JQuery, HTML&CSS, PHP, TypeScript

## **SCHOOL ACTIVITIES**

Teaching Assistant of WashU Data Structures & Algorithms, Database Management Systems Courses

- Mentored students on coding problem sets, debugging sessions and responded to their questions in Piazza
- Guided students through lab sessions, projects and assisted professors with grading exams and homework submissions **Member** of WashU Women in Computer Science

## **PROJECT**

## DESIGN SOL AND MONGO DATABASE SYSTEMS IN JAVA

Jan. 2018 – May 2018

- Used the concepts of Object Oriented Analysis and Design to analyze and design SQL and NoSQL database systems
- Implemented file management, B+ trees, join Algorithms, query optimization, concurrency control functionalities
- Wrote a suit of **Junit tests** to test each functionality

#### PAC-MAN GAME AI DRIVE ALGORITHM IMPLEMENTATION IN PYTHON

Sep. 2018 - Dec. 2018

- Implemented depth-first search, breadth-first search, cost search, A\* search algorithm to drive Pac-Man to find beans
- Used reinforcement learning and O-learning algorithms to enable Pac-Man to learn how to win the game

## THE SECOND PLACE KAGGLE COMPETITION OF APPLICATIONS OF DEEP LEARNING Sep. 2018 - Dec. 2018

- Preprocessed the raw data, transformed into features and fixed missing values by Python, Google TensorFlow and Keras
- Constructed Neural Network, Random Forest and Gradient Boost Regression Tree to train on features and merge

#### A WEB DEVELOPMENT PROJECT-EVENT SEARCH TICKET RECOMMENDATION Jan. 2019 - Mar. 2019

- Designed an interactive web page for users to search events based on keywords and location as well as purchase tickets utilizing HTML, CSS and JavaScript
- Implemented several Java servlets using RESTful APIs to handle HTTP requests and responses
- Built relational and NoSQL databases (MySQL, MongoDB) to store event data from TicketMaster API
- Designed content-based **recommendation algorithms** to implement event recommendation

#### A COLLABORATIVE ONLINE JUDGE SYSTEM

Sep. 2018 - Dec. 2018

- Developed a collaborative code editor supporting multiple users editing simultaneously using ACE, Socket.io, Redis
- Designed and developed a single-page web application for coding problem through Angular2, Node.js, MongoDB
- Built a user-code executor service (Docker, Flash) which can build and execute users'code
- Improved system throughput by decoupling services using **RESTful API** and loading balancing by **Nginx**

## **INTERNSHIP**

#### **Data Intern** EVERBRIGHT BANK

Jan. 2017 - Mar. 2017

- Imported new customers' information into the system using SQL and use SQL statements to query informational tables
- Searched for the vulnerabilities in the system using security and forensic tools (SQL Server Profiler)

## Financial Analyst Assistant DORAY CAPITAL

Jun. 2014 - Sep. 2014 Jan. 2015 - Mar. 2015

- Analyzed the annals of Taxi industry data, calculated the yield rate and the specialTaxi successfully was carried out
- Assisted CDPF to design taxi subsidizing policies for the disabled and to implement the subsidies of the program
- Calculated the expected profit of Amaranth Group later funded ¥ 100 million and completed the roadshow PPT