Qianhui Yu

(646) 3876786 | qy2226@columbia.edu | Qianhui-Yu.github.io | https://www.linkedin.com/in/qianhuiyu

EDUCATION

Columbia University **09/2019 – 12/23/2020**
- **M.S. in Electrical Engineering**, GPA: 3.78/4.00 **New York, NY**
- Courses: Analysis of Algorithms, Cloud Computing, Introduction to Databases, Big Data Analytics, Computer Networks, Introduction to Blockchain, Applied Deep Learning
- **Huazhong University of Science and Technology (HUST)** **08/2015 - 06/2019**
- **B.S. in Electrical Engineering,** GPA: 3.76/4.00 **Wuhan, CN**
- Courses: Data Structures, Computer Architecture, Digital Signal Processing, Probability Theory and Statistics, Pattern Classification, Computer Vision, Artificial Intelligence

SKILLS

Programming Languages: Java, Python, JavaScript, C/C++
Operating Systems: Windows, Linux, MacOS **Database**: MySQL, PostgreSQL, DynamoDB
Cloud Platform: AWS, Azure, GCP **Development Framework**: Spring Boot, Django, Flask
Other Technologies: Spring Data JPA, MVC, Maven, Postman, Spark, HTML, Git, Elastic Search, Socket Programming

INTERNSHIP

Walmart Inc. Sam's Club **06/2020 – 08/2020**
Software Engineer Intern **Bentonville, AK**
- Redesigned and implemented the product database of Recovery Rate Optimization team.
- Enable the new database schema meet new business requirements (Liquidator on-boarding and club configuration).
- Developed two new features: Liquidator on-boarding and club configuration with Spring Boot and Spring data JPA.
- Enable associates enter new liquidators into system and give them more control of configuring liquidators' business.
- Completed two sprints of general product support.

E-Navigation Information & Technology Co., Ltd **06/2019 – 08/2019**
Software Engineer Intern **Hangzhou, CN**
- Implemented Ship Route Planning Module with Java, Spring, Spring Boot, and MySQL.
- Remodeled the ship route planning service using the shortest path algorithm.
- Improved the response speed of route planning service (from harbor to harbor) by 28.3% on average.
- Initiated a new feature which enables our system to provide route planning service from any point to destination harbor.

PROJECTS

Intelligent and Secure Access System based on AWS (Python, JavaScript) **10/2019 – 12/2019**
- **Backend:**
  - Established visitor filter with Lambda Function, Amazon Rekognition, and Dynamo DB.
  - Enabled system to distinguish between strangers and known visitors.
  - Created visitor authentication workflow with Lambda Function and API Gateway.
  - Enabled managers to authorize visitors' access.
  - Enabled system to store new visitors' faces and send one-time-password.
- **Frontend:**
  - Designed and Developed the visitor/manager portals
  - Integrated two web pages with API Gateway and Swagger.

Better Name More Money: Airbnb analysis (Django, Spark, HTML) **10/2019 – 12/2019**
- Developed the web application using Django and generated the following listed functions' APIs for the application.
- Visualized significant words used in names of listings with high popularity by clustering and generating WordCloud.
- Recommended words that could bring more popularity for householders.
- Generated Airbnb price heat map and crime heat map with Google API.
- Developed and tuned popularity prediction tools based on Random Forest and XGBoost.
- Achieved lower MAE from 1.21 reviews (baseline) to 0.63 using Cross-Validation and Grid-Search.

Group shopping web application (Python, Flask) **10/2019 – 11/2019**
- Designed and created the group shopping database in PostgreSQL.
- Implemented the demo functions including login, adding items, adjusting cart, placing orders, showing order history, and management mode with Flask.
- Deployed the application on the VM in GCP.