

Jiahui (Carson) Lu

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EDUCATION

M.S in Computational Engineering (GPA: 3.7/4.0), **University of California**, Los Angeles 03/2019
Exchange Program in Computer Science (GPA: 4.0/4.0), **University of California**, San Diego 06/2017
B.S in Engineering (GPA: 3.8/4.0), **Beijing Institute of Technology** 06/2017

SKILLS

Programming: Java, Python, C/C++, JavaScript, SQL, PHP, Ruby, HTML, CSS, Shell Scripting, Go, Matlab
Frameworks: Spring Boot, Hadoop, Node.js, Django, Flask, Ruby on Rails, Angular, React, Redux, JSP, Spark
Tools/DBs: MySQL, PostgreSQL, Docker, MongoDB, RabbitMQ, Redis, Hive, Netflix OSS, ELK Stack, Locust
Knowledge: OOP/OOD, Design Patterns, Microservice, Distributed Systems, Big Data Analytics, Networks

EXPERIENCE

Software Engineer Intern, Meituan, Mobike City Travel Team 06/2018 – 09/2018

- Delivered a real-time taxi dispatch simulator with decoupled microservices by Spring Boot and RabbitMQ
- Proposed and implemented a new taxi combinatorial dispatch model by GBDT and Hill Climbing method, which improved driver acceptance rate by 30% and reduced dispatch time by 22%
- Designed RESTful APIs for update location, nearby query, pair decision, dispatch service with sharded geo-data in Redis Cluster and user and trip info under PostgreSQL
- Visualized the simulation for 200k drivers in dashboard with statistics and trajectories by SockJs, Stomp.js

Software Engineer Internship, Cloud Car Team, Mercedes Benz 01/2017 – 06/2017

- Developed a web application for monitoring cloud car remote apps APIs with rate limiter and email alert notification under Python, Django and MemcacheDB
- Maintained data monitor with visit/latency/throughput counts and anomaly/outlier/threshold detections
- Implemented analytics with visualized monitor data in Hive and collected logs deployed from ELK Stacks

Software Developer, Bookie, Startup for O2O College Textbook Sharing Service 06/2017 – 09/2017

- Designed user and book management system with membership management, unauthorized user filtering, sensitive data masking with Ruby on Rails and Kafka for log/event analysis
- Implemented MVC backend with Rails 5.1 on MySQL and asynchronous job queue with Sidekiq and Redis
- Automated system deployment with Docker, Nginx on AWS EC2/ECS and AWS ELB as load balancer

PROJECTS

OrienteeringMe, An Orienteering Map Application 09/2018 – 11/2018

- Designed game map hold by Orienteering Club with system architectures under Spring Boot/Cloud, RabbitMQ, MySQL, MongoDB, Docker, Netflix OSS
- Built multiple microservices for data persistence/distribution/updating, player/supply/target tracking
- Utilized React/Redux based front-end to provide UI for real time info for player, map, location and target

MAEN Stack Based Favorite TV Shows Sharing Website 12/2017 – 03/2018

- Developed a TV Show website under AWS Cloud9 and deployed by Heroku with cloud-hosted MongoDB
- Designed Angular based frontend offering post, comment, search, watchlist, showtime, and news feed
- Implemented register and authentication with Passport.js and Socket.io based chatting room
- Realized shows customized recommendations and Top 10 popular TV Series using Hadoop framework

Search Engine Implementations with MapReduce and Flask 02/2018 – 05/2018

- Deployed a search system with Python/Flask; Used Hadoop to realize PageRank and Autocompletion
- Implemented Google PageRank Algorithm with indexed data utilized MapReduce for matrix operations
- Applied visualizations of Page Ranks and Page Clusters by React and d3.js
- Built up N-Gram Data Library by MapReduce and imported into MySQL to support Autocompletion