

Yan (Rocky) Zhang

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Summary: Offering hands-on experience in full-stack, mobile app development. Seeking a full-time software engineer position

EDUCATION

Washington State University

Pullman, WA

M.S. in Computer Science, GPA: **3.79/4.0**

May 2017

Dalian Jiao Tong University

Dalian, China

B.S. in Mechanical Engineering & Software Engineering (Double Majors), top **5%**

July 2013

EXPERIENCE

Washington State University

Pullman, WA

Software Engineer Internship

Full-Stack Development (Demo: <http://bit.ly/zoominweb>)

Jul 2017 - Jul 2018

- Designed and implemented a Geo-index based social network with **Go** and **React** for users to post and view images in a gallery view or a map view (Google Map API)
- Built a scalable web service in Go with token-based authentication (**JWTs**) and deployed it to Google App Engine (**GAE Flex**) to improve scalability
- Implemented efficient geo distance queries within a range (e.g., 100km) using **ElasticSearch** in Google Cloud Engine (**GCE**) and used **BigTable** to support high-performance storing
- Used Google Cloud Storage (**GCS**) to store unstructured data and **Redis** as a cache to reduce latency (by 20%) and network cost
- Utilized **Dataflow** to dump data into **BigQuery** for offline analyses to improve the keyword based spam detection

Additional Duties: **Proofread** the manuscripts and production versions of the book Systems Programming in Unix/Linux written by Dr. K.C. Wang

PROJECTS

Android Development – Event Sharing App with LBS (Demo: <http://bit.ly/eventgram>)

Jan - Apr 2019

- Developed an **Android** App for users to post events (location, comments, likes, etc.) and view nearby events
- Utilized **Google Firebase** to manage sign-in (Firebase Auth), store data of users, events, comments (Firebase Realtime Database) and images (Firebase Storage)
- Integrated **Google Map API** to display nearby events (within 20 miles) in a map view
- Implemented in-app advertising using **Google AdMob** to improve cash flow

React Based Frontend Development – NBA Shot Visualization

Oct - Dec 2018

- Created a comprehensive dashboard using **React** to search a player and visualize his stats and shot performance against any team for each of the past three seasons
- Developed a series of filters to provide specific visualizations (e.g., a match-filter for home/away/won/lost games)
- Fetched data (player information and shot data) from stats.nba.com and used **Lodash** library to improve the website performance

ELK Based User Behavior Analysis

Jun - Aug 2018

- Used **ElasticSearch** to store server logs processed and dumped by **Logstash** for further analyses
- Aggregated various charts in **Kibana** to investigate and evaluate request traffic to improve overall performance, utilized Geop to explore the geographical distribution of users
- Analyzed server logs using **MapReduce** in MongoDB to find the peak period of requests

Full-Stack Development – Event Search and Recommendation (Demo: <http://bit.ly/evntrec>)

Jan - May 2018

- Designed and implemented an **AJAX** based web page for users to search nearby events, update favorite and view recommended events (**HTML/CSS/JavaScript**)
- Developed a **RESTful** web service with three Java servlets using **Apache Tomcat** to handle HTTP requests
- Built relational and NoSQL databases (**MySQL/MongoDB**) to store parsed data from TicketMaster API, performed unit tests using **JUnit** and **DBUnit**
- Implemented a content-based personalized recommendation system using filtering and sorting algorithms
- Deployed the server to **AWS** for better scaling and performed a load test (220 QPS) using **Apache JMeter**

SKILLS

Programming Languages: **Java**, C/C++, HTML/CSS/JavaScript, Python, Go, SQL, Shell Script

Full-Stack: React, Node.js, MySQL, MongoDB, Google Firebase, Apache Tomcat, AWS, Test (JUnit, DBUnit, JMeter), Redis, Git/GitHub

Big Data: Google Cloud, BigTable, BigQuery, Dataflow, Hadoop, MapReduce, ELK (ElasticSearch, Logstash, Kibana)