

Yijie Qiu

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EDUCATION

CARNEGIE MELLON UNIVERSITY

MS INFORMATION SYSTEMS MGMT

December 2015 | Pittsburgh, PA

BS CHEMICAL ENGINEERING

May 2014 | Pittsburgh, PA

Additional major in Economics and Statistics
University Honors

COURSEWORK

GRADUATE

10605 Machine Learning Large Data Sets

11642 Search Engine

15619 Cloud Computing

95702 Distributed Systems

95877 Python for Data Analysis

95736 Advanced Relational Database

UNDERGRADUATE

15121 Data Structures in Java

36402 Advanced Data Analysis

36315 Statistical Graphics and Visualization

06462 Optimization Modeling & Algorithms

SKILLS

TECHNICAL

PROGRAMMING LANGUAGES

Java

Python

Shell

R

MATLAB

TOOLS

Oracle Database & PL/SQL

Redshift

Hive

MapReduce

LANGUAGE

Native: Mandarin Chinese

Fluent: English • Cantonese

EXPERIENCE

AMAZON | SOFTWARE DEVELOPMENT ENGINEER, DEVICE SERVICES

February 2016 - Present | Seattle, WA

- Developed ingestion work flow for service logs, using AWS EMR, Redshift, and Hive
- Developed load testing utilities for backend services, and instrumented load tests in preparation of holiday peaks
- Maintained server-side and client-side metrics and logging components used by Amazon apps across various platforms (FireOS, Android, iOS)

AMAZON | SOFTWARE DEVELOPMENT INTERN, KINDLE XRAY

May 2015 – Aug 2015 | Seattle, WA

- Analyzed logs using MapReduce jobs to identify areas of improvement in text analytics pipelines
- Improved quality of pipeline outputs by implementing and querying from a Spring and Hibernate-backed AWS RDS database storing historic log data

PROJECT

ONLINE VOTING SYSTEM

Aug 2015 – Dec 2015

- Designed a scalable, encrypted, and verifiable online voting system, where each voter can verify that his/her vote is received and tallied correctly, without explicitly revealing the choice
- Built a prototype of the system using Java Swing for desktop clients, AWS EC2 with MySQL for servers, ElGamal encryption for data protection during transmission, and SCrypt for ballot verification

TEXT SEARCH ENGINE

January 2015 – April 2015

- Built a Lucene-based search engine that supports common search operations like AND, OR, NEAR, and WINDOW
- Enabled search result ranking through Boolean, BM25, and Indri algorithms
- Optimized search results using query expansion and Learning to Rank

TWITTER ANALYTICS RESTFUL WEB SERVICE

Oct 2014 - Dec 2014

- Designed and implemented a RESTful web service to handle different types of queries regarding Twitter users and their tweets
- Utilized MapReduce to censor, filter, and process 1TB of raw data, and ingested results into MySQL and HBase databases for later accesses
- Optimized service performance under large traffic through use of load balancer, connection pool, caching, and database tuning