

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 ENGINEER, AMAZON SAGEMAKER
March 2017 - Present | Seattle, WA

- Contributed to the release of Amazon SageMaker at AWS re:Invent 2017
- Designed and implemented service canaries for all SageMaker Hosting APIs, to continuously monitor service health and alert on anomalies
- Improved service scalability by introducing event-based notifications to asynchronous workflows

AMAZON | SOFTWARE ENGINEER, DEVICE SERVICES
February 2016 - March 2017 | Seattle, WA

- Developed end-to-end encrypted metrics ingestion pipeline, using AWS EMR, Redshift, and Hive
- Established load testing utilities for back-end 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 (Fire OS, 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

- Programmed 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