

JIARUI GAO

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EDUCATION

Carnegie Mellon University Silicon Valley, Mountain View, CA

Aug. 2018 - Dec. 2019

M.S. in Software Engineering, GPA: 3.83/4.0

Selected courses: Cloud Computing(A), Software Engineer Methods(A), Machine Learning for Engineers(A)

Fudan University, Shanghai, China

Sept. 2014 - Jun. 2018

B.S. in Computer Science, Top Talent Undergraduate Training Program, GPA: 3.52/4.0

EXPERIENCE

Google LLC, Austin, TX

Feb. 2020 - now

Software Engineer

(*Java, JUnit, Guice, Spanner(Database), Boq(Microservices), Protocol Buffers*)

- Work on Candidate Portal to create a better experience for candidates applying to jobs at Google.

Google LLC, Sunnyvale, CA

May. 2019 - Aug. 2019

Software Engineer Intern in NBU team at Google Ads

(*Java, JUnit, Guice, Spanner(Database), Boq(Microservices), Protocol Buffers*)

- Developed a manual review tool for *Engagement Rewards By Google* to visualize per user abuse information.
- Established fully tested back-end RPC services to retrieve and process data from Spanner database.
- Integrated with two frameworks to securely access user data and utilize Google-wide abuse protections.

Morgan Stanley, Shanghai

Jul. 2017 - Sept. 2017

Application Development Intern in the department of Corporate & Funding Technology

(*Java web application, HTML/CSS, AngularJS2.0, TypeScript, Spring, DB2*)

- Built a Java web application for employees to report business investments made outside the company.
- Proposed a novel graph algorithm to render decision processes with a configurable set of tree-like rules.
- Designed a new database schema using DB2 temporary tables on back-end to make history data traceable.

SELECTED PROJECTS

Emergency Social Network Application, CMU

Fall 2018 & Spring 2019

(*Javascript, Node.js, HTML/CSS, RESTful API, Socket.io, Mocha, MySQL, Heroku, Jira, Confluence*)

- Partnered with the whole class(15 students) to develop a mobile web application for emergency situations.
- Implemented RESTful APIs for use cases including join community, chat publicly and searching information and developed corresponding UI pages with high usability.
- Conducted test-driven development with Mocha and continuously deployed the application to Heroku cloud.
- As a member of Collaboration CoP(Community of Practice), proposed new practices and kept track of predictability and productivity throughout the whole project.

Twitter Analytics Web Service, CMU

Spring 2019

(*Java, Vert.x, MySQL, AWS EC2/ELB/Lightsail, Terraform*)

- Built a scalable and reliable web service on AWS to handle tens of thousands of requests per second.
- Processed about 1T raw Twitter data and stored it into MySQL database with different schemas for queries like user recommendation and range query for topic words.
- Identified potential bottlenecks and optimized web-tier and store-tier architectures to improve throughput.
- Fully automated the deployment of AWS EC2 instances and AWS ELB using Terraform.

Mutation Testing on Guava, CMU

Fall 2018

(*Java, JUnit, EclEmma, Gradle*)

- Created a test plan for Guava TreeRangeMap using systematic spec-based and structural testing techniques.
- Designed 167 test cases using the test plan and applied them to the super-mutant created by the rival team.
- Evaluated the test plan through detailed fault and coverage analysis.

Frame-Transformer Emotion Classification Network. *Jiarui Gao, Yanwei Fu, Yu-Gang Jiang, Xiangyang Xue. Published in ACM International Conference on Multimedia Retrieval(ICMR), 2017.* Spring 2017

- Proposed a deep neural network for solving video emotion classification and detection jointly.
- Achieved state-of-the-art performance on Ekman6 dataset by a large margin.

SELECTED AWARDS

Best Undergraduate Thesis Award, Fudan University (top 1%)
Outstanding Graduate Students of Fudan University (top 15%)

July 2018
Jun 2018

SKILLS

Programming Languages: Java, C/C++, Python, HTML/CSS, Javascript, MATLAB

Other: MySQL, MongoDB, JQuery/AngularJS2.0/React, Node.js, Linux, Amazon Web Service