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, Sunnyvale, CA   May. 2019 - Aug. 2019
Software Engineer Intern in NBU team at Google Ads
(Java, Guice, Spanner(DB), Boq, Google Admin(framework))
- Developed a supporting tool to display user information for the manual review process in abuse detection.
- Established back-end RPC services to retrieve and process data from Spanner database.
- Integrated with Google Admin to help build UI and make accessing user data secure and privacy-compliant.

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%)   July 2018
Outstanding Graduate Students of Fudan University (top 15%)   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