JIARUI GAO

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EDUCATION

Carnegie Mellon University Silicon Valley, Mountain View, CA   Aug. 2018 - Dec. 2019
M.S. in Software Engineering

Fudan University, Shanghai, China   Sept. 2014 - Jun. 2018
B.S. in Computer Science, Top Talent Undergraduate Training Program
GPA: 3.52/4.0, Rank: 14/70, Major GPA: 3.65/4.0

EXPERIENCE

Shanghai Key Laboratory of Intelligent Information Processing   Nov. 2015 - Jun. 2018
Research assistant supervised by Prof. Yanwei Fu & Prof. Yu-Gang Jiang
(Python, MATLAB, Numpy, Tensorflow/Caffe, SVM)
- **Publication: Jiarui Gao**, Yanwei Fu, Yu-Gang Jiang, and Xiangyang Xue. *Frame-Transformer Emotion Classification Network*, In ACM International Conference on Multimedia Retrieval(ICMR), 2017.
- Proposed a unified neural network architecture for solving emotion classification, emotion attribution and emotion-oriented summarization jointly with only video-level supervision.
- Improved emotion classification accuracy by 6.1% and emotion detection mAP by 7.8% compared to the state-of-the-art performance on Ekman6 dataset.

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)
- Developed a Java web application for Outside Business Interest system as an effective PoC.
- Proposed a novel graph algorithm in AngularJS2.0 on front-end 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.

PROJECTS

Emergency Social Network Application, CMU   Present
(Javascript, Node.js, React, Bootstrap, HTML/CSS, RESTful API, Socket.io, Mocha, MySQL, Heroku)
- Partnered with a team of four to develop a web social network application for emergency situations with Scrum and Kanban workflow.
- Developed RESTful APIs for use cases including join community, chat publicly and post announcements.
- Built front-end UI in React for announcement page and used Socket.io to update the content dynamically.
- Wrote in-progress unit and integration tests with Mocha and deployed the application to Heroku Cloud.

Mutation Testing on Guava, CMU   Fall 2018
(Java, JUnit, EclEmma, Gradle)
- Created a test plan from scratch for TreeRangeMap class in Guava using both systematic spec-based and structural testing techniques with a team of three.
- Designed 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.

Distributed Encrypted File System   Spring 2017
(Python, HDFS, Crypto, RSA/AES)
- Extended the design of Hadoop Distributed File System(HDFS) to allow clients to store large-scale data on a cluster of untrusted servers using an encryption layer on clients' side.
- Achieved full recovery for possible damaged files by retrieving file blocks from other servers.
- Granted read-write locks for clients to keep a high consistency.

SELECTED AWARDS

Best Undergraduate Thesis Award, Fudan University (top 1%)   July 2018
Outstanding Graduate Students of Fudan University (top 15%)   Jun 2018
Honors Student Award in Top Talent Undergraduate Training Program, Fudan University (top 7%)   Jun 2018

SKILLS

Programming Languages: C/C++, Java, Python, HTML/CSS, Javascript, MATLAB
Other: MySQL, DB2, JQuery/AngularJS2.0/React, Node.js, JUnit, Linux, Tensorflow/Keras, Numpy, Git