

# JIARUI GAO

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## EDUCATION

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<b>Carnegie Mellon University Silicon Valley, Mountain View, CA</b> M.S. in Software Engineering	Aug. 2018 - Dec. 2019
<b>Fudan University, Shanghai, China</b> B.S. in Computer Science, Top Talent Undergraduate Training Program GPA: 3.52/4.0, Rank: 14/70, Major GPA: 3.65/4.0	Sept. 2014 - Jun. 2018

## EXPERIENCE

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<b>Shanghai Key Laboratory of Intelligent Information Processing</b> Research assistant supervised by Prof. Yanwei Fu & Prof. Yu-Gang Jiang ( <i>Python, MATLAB, Numpy, Tensorflow/Caffe, SVM</i> )	Nov. 2015 - Jun. 2018
<ul style="list-style-type: none"><li>Improved the performance of emotion-oriented video summarization using frame encoding and SVM.</li><li>Proposed a graph-based approach of fine-tuning word vectors by leveraging information from image contents for zero shot learning and achieved 56.32% accuracy on AwA dataset.</li></ul>	
<b>Morgan Stanley, Shanghai</b> Application Development Intern in the department of Corporate & Funding Technology ( <i>Java web application, HTML/CSS, AngularJS2.0, TypeScript, Spring, DB2</i> )	Jul. 2017 - Sept. 2017
<ul style="list-style-type: none"><li>Proposed a novel graph algorithm in AngularJS2.0 on front-end to render decision processes with a configurable set of tree-like rules.</li><li>Designed a new database schema using DB2 temporary tables on back-end to make history data traceable.</li><li>Collaborated closely with an Indian infrastructure team to add features for an internal Java web framework.</li></ul>	

## PUBLICATION

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<b>Jiarui Gao, Yanwei Fu, Yu-Gang Jiang, and Xiangyang Xue.</b> <i>Frame-Transformer Emotion Classification Network</i> , In ACM International Conference on Multimedia Retrieval(ICMR), 2017	
<ul style="list-style-type: none"><li>Proposed a unified neural network architecture for solving emotion classification, emotion attribution and emotion-oriented summarization jointly with only video-level supervision.</li><li>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.</li></ul>	

## PROJECTS

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<b>Emergency Social Network Application, CMU</b> ( <i>Javascript, Node.js, jQuery, Bootstrap, HTML/CSS, RESTful API, Socket.io, MySQL, Trello</i> )	Present
<ul style="list-style-type: none"><li>Partnered with a team of four to develop a web social network application for emergency situations and used Trello to track tasks with Scrum and Kanban workflows.</li><li>Built front-end UI for login and chatting pages in Bootstrap and designed RESTful APIs for HTTP requests.</li><li>Adopted an object oriented design for back-end and stored history data in MySQL database.</li></ul>	
<b>Distributed Encrypted File System</b> ( <i>Python, HDFS, Crypto, RSA/AES</i> )	Spring 2017
<ul style="list-style-type: none"><li>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.</li><li>Achieved full recovery for possible damaged files by retrieving file blocks from other servers.</li><li>Granted read-write locks for clients to keep a high consistency.</li></ul>	
<b>Speech Recognition for Words</b> ( <i>Python, MATLAB, Keras</i> )	Spring 2016
<ul style="list-style-type: none"><li>Completed voice activity detection from original speech signals and extracted MFCC features as well.</li><li>Trained LSTM neural networks in Keras for word classification and achieved over 95% recognition accuracy on testing dataset.</li></ul>	

## SELECTED AWARDS

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Outstanding Undergraduate Thesis Award, Fudan University (1 selected out of 70)	July 2018
Outstanding Graduate Students of Fudan University (5 selected out of 70)	Jun 2018
Honors Student Award in Top Talent Undergraduate Training Program, Fudan University (5/70)	Jun 2018
First Prize of Top Talent Undergraduate Training Program Scholarship, Fudan University (15/70)	Nov 2017

## SKILLS

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