Qing Li

Curriculum Vitae

PERSONAL DETAILS

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EDUCATION

Ph.D. in Statistics *2018.09 - Now*
University of California, Los Angeles (UCLA), USA

- Advisor: Prof. Song-Chun Zhu, Department of Statistics and Computer Science, UCLA.

Master in Information and Communication Engineering *2015.08 - 2018.06*
University of Science and Technology of China (USTC), Hefei, P.R. China

- Advisor: Prof. Jiebo Luo, Department of Computer Science, University of Rochester.

Bachelor of Engineering in Automation *2011.09 - 2015.07*
University of Science and Technology of China (USTC), Hefei, P.R. China

- GPA: 3.93/4.3 (92/100), **Rank: 1/82**
- Awarded the **Guo Moruo** Scholarship, for the **best graduate** in Department of Automation.

RESEARCH EXPERIENCES

VizWiz v2 *2018.07 - 2018.09*
Supervised by Prof. Danna Gurari in University of Texas at Austin

Visual Question Answering with Explanation *2018.01 - 2018.06*
Supervised by Prof. Jianfei Cai and Prof. Shafiq Joty in NTU, Singapore.

- Constructed a new dataset of VQA with Explanation (VQA-E), which consists of 181,298 visual questions, answers, and explanations.
- Proposed a novel multi-task learning architecture to jointly predict an answer and generate an explanation for the answer.

Visual Question Answering for Blind People (VizWiz v1) *2017.10 - 2018.01*
Supervised by Prof. Danna Gurari in UT Austin and Prof. Jiebo Luo

- Proposed VizWiz, the first goal-oriented VQA dataset arising from a natural setting. VizWiz consists of 31,000 visual questions originating from blind people.
- Analyzed the image-question relevance of VizWiz and benchmarked state-of-the-art VQA algorithms and revealed that VizWiz is a challenging dataset to spur the research on assistive technologies that eliminate accessibility barriers for blind people.

Video Captioning and Ad-hoc Video Search *2017.02 - 2017.10*
Supervised by Prof. Chong-Wah Ngo in City University of Hong Kong

- Proposed a novel framework that can match video and text and generate descriptions for videos by utilizing spatio-temporal attention and applied the proposed framework to the Video to Text task of TRECVID 2017 Competitions.
- Revised the framework to search relevant videos given a text query and won 3rd place in the Ad-hoc Video Search task. Our notebook paper is accepted by NIST TRECVID Workshop 2017.
- Devised a hierarchical co-attention network to improve the AVS system's adaptability to queries of variable length.

Explainable Visual Question Answering *2016.08 - 2017.02*
Supervised by Dr. Tao Mei in Microsoft Research Asia and Prof. Jiebo Luo

- Proposed a novel framework towards explainable VQA. Our framework can generate attributes and captions for images to explain why the system predicts the specific answer to the question.
- Defined four measurements of the explanations quality and demonstrated strong relationship between the explanations quality and the VQA accuracy. Our current system achieves comparable performance to the state-of-the-art and can improve with explanations quality.

Action and Activity Recognition in Video *2014.12 - 2015.07*
Supervised by Dr. Ting Yao, Dr. Tao Mei in Microsoft Research Asia and Prof. Jiebo Luo

- Proposed a hybrid framework to learn a deep multi-granular spatio-temporal representation for video action recognition by using 2D/3D CNNs and LSTM. Our paper is accepted and selected into the **Best Paper Finalist** by ICMR 2016 (Accepted Rate: 17%, Best Paper Finalist Rate: 1%). An improved version of the conference paper is accepted by IJMIR 2017.
- Won 2nd place in the Action Classification Task of THUMOS Challenge and presented our work on CVPR THUMOS Workshop in Boston, June 2015. This challenge contains over 430 hours of video data and 45 million frames on 101 action classes.

Highlight Detection for First-Person Video Summarization *2014.07 - 2014.12*
Supervised by Dr. Ting Yao and Dr. Tao Mei in Microsoft Research Asia

- Collected a new large dataset from YouTube for first-person video highlight detection. The dataset consists of 100 hours videos mainly captured by GoPro cameras for 15 sports-related categories.
- Proposed a pairwise deep ranking model to detect highlight segments in videos. My contribution focuses on devising a two-stream CNN (frame and flow) to extract features for video segments.

PUBLICATIONS

- **Qing Li**, Jianlong Fu, Dongfei Yu, Tao Mei, Jiebo Luo. "*Tell-and-Answer: Towards Explainable Visual Question Answering using Attributes and Captions.*" EMNLP'18.
- **Qing Li**, Qingyi Tao, Shafiq Joty, Jianfei Cai, Jiebo Luo. "*VQA-E: Explaining, Elaborating, and Enhancing Your Answers for Visual Questions.*" ECCV'18.
- Danna Gurari, **Qing Li**, Abigale Stangl, Anhong Guo, Chi Lin, Kristen Grauman, Jiebo Luo, Jeffrey Bigham. "*VizWiz Grand Challenge: Answering Visual Questions from Blind People.*" CVPR'18 (**Spotlight**).
- Phuong Anh Nguyen, **Qing Li**, Zhi-Qi Cheng, Yi-Jie Lu, Hao Zhang, Xiao Wu Chong-Wah Ngo. "*VIREO @ TRECVID 2017: Video-to-Text, Ad-hoc Video Search and Video Hyperlinking.*" NIST TRECVID Workshop (TRECVID'17), Gaithersburg, USA, Nov 2017
- **Qing Li**, Zhaofan Qiu, Ting Yao, Tao Mei, Jiebo Luo, Yong Rui. "*Learning Hierarchical Video Representation for Action Recognition.*" International Journal of Multimedia Information Retrieval (IJMIR), February 2017.
- **Qing Li**, Zhaofan Qiu, Ting Yao, Tao Mei, Jiebo Luo, Yong Rui. "*Action Recognition by Learning Deep Multi-Granular Spatio-Temporal Video Representation.*" International Conference on Multimedia Retrieval (ICMR), Columbia University, New YorK, USA, July 2016. **(Best Paper Finalist, Oral presentation)**.
- Zhaofan Qiu, **Qing Li**, Ting Yao, Tao Mei, Yong Rui. "*MSR Asia MSM at THUMOS Challenge 2015.*" CVPR THUMOS Challenge Workshop, Boston, USA, June 2015.

SKILLS

English	TOEFL: 108 (R30, L27, S23, W28) GRE: V156, Q168, AW4.0
Programming Language	Python, C++, Matlab, LaTeX
Deep Learning Framework	PyTorch, Tensorflow, Caffe

HONORS AND AWARDS

- National Scholarship, awarded to top 1% graduates. 2017
- IJCAI'17 Reviewer. 2017
- Best Paper Finalist in ICMR'16, awarded to 4 papers from over 230 submissions. 2016
- 2nd Prize on THUMOS Action Classification Challenge @CVPR'15. 2015
- Outstanding Graduate Scholarship in Anhui, China, awarded to top 1% graduates. 2015
- **Guo Moruo** Scholarship, awarded to the **best graduate** of the department. 2014
- National Scholarship, awarded to top 1% undergraduates. 2013
- Outstanding Student Scholarship (Grade 1), awarded to top 1% undergraduates. 2012
- Special Freshman Scholarship, awarded to top 1% freshmen. 2011