# Mengshi QI

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## **Education**

## Beihang University, Beijing, China (09/2014-06/2019)

Ph. D. Student in Computer Application Technology

Lab: Laboratory of intelligent recognition and image processing in School of CSE

Supervisor: Prof. Yunhong Wang

### University of Rochester, Rochester, NY, USA (11/2017-12/2018)

Visiting Ph. D. Student

Lab: Visual Intelligence & Social Multimedia Analytic Research Group (VIStA)

Supervisor: Prof. Jiebo Luo

## Beihang University, Beijing, China (09/2012-06/2014)

Master of Engineering in Computer Science

Lab: Sino-German Joint Software Institute in School of CSE

Supervisor: Prof. Zhongzhi Luan

## Beijing University of Posts and Telecommunications, Beijing, China (09/2008-06/2012)

Bachelor of Engineering in Intelligence Science and Technology

### **Research Interests**

Computer Vision: scene understanding, visual reasoning, action & activity recognition Multimedia: image & video retrieval, cross-modal hashing, sports video analysis Machine Learning and Social Data Mining

### **Publications**

#### Journal:

- **1. Mengshi Qi**, Yunhong Wang, Jie Qin, Annan Li, Jiebo Luo, and Luc Van Gool, "*stagNet: An Attentive Semantic RNN for Group Activity and Individual Action Recognition*", IEEE Transactions on Circuits and Systems for Video Technology (TCSVT), 2019
- **2. Mengshi Qi**, Yunhong Wang, Annan Li, and Jiebo Luo, "Sports Video Captioning via Attentive Motion Representation and Group Relationship Modeling", IEEE Transactions on Circuits and Systems for Video Technology (TCSVT), 2019

#### Conference:

1. **Mengshi Qi**, Weijian Li, Zhengyuan Yang, Yunhong Wang, and Jiebo Luo, "Attentive Relational Networks for Mapping Images to Scene Graphs", IEEE Conference on Computer Vision and Pattern Recognition (CVPR' 19), Long Beach, USA, June 2019

- 2. **Mengshi Qi**, Yunhong Wang, Jie Qin, and Annan Li, "KE-GAN: Knowledge Embedded Generative Adversarial Networks for Semi-Supervised Scene Parsing", IEEE Conference on Computer Vision and Pattern Recognition (CVPR' 19), Long Beach, USA, June 2019
- 3. **Mengshi Qi**, Jie Qin, Annan Li, Yunhong Wang, Jiebo Luo, and Luc Van Gool, "*stagNet: An Attentive Semantic RNN for Group Activity Recognition*", European Conference on Computer Vision (ECCV' 18), Munich, Germany, September 2018
- 4. **Mengshi Qi**, Yunhong Wang, Annan Li, and Jiebo Luo, "Sports Video Captioning by Attentive Motion Representation based Hierarchical Recurrent Neural Networks", The 1<sup>st</sup> International Workshop on Multimedia Content Analysis in Sports @ACM Multimedia (MMSports' 18), Seoul, Korea, October 2018 (oral presentation)
- 5. **Mengshi Qi**, Yunhong Wang, and Annan Li, "Online Cross-modal Scene Retrieval by Binary Representation and Semantic Graph", ACM on Multimedia Conference (MM' 17), Mountainview, USA, October 2017
- 6. **Mengshi Qi**, Yunhong Wang, "DEEP-CSSR: Scene Classification using Category-specific Salient Region with Deep Features", IEEE International Conference on Image Processing (ICIP' 16), Phoenix, Arizona, USA, September 2016 (oral presentation)

## **Research Projects**

- 1) Key Technology for Thorough Perception of Individual Visual Big Data, The Major Research Plan of the Natural Science Foundation of China (Grant No.2016YFB1001002) (01/2016-06/2019)
  - Supervisor: Prof. Yunhong Wang
- 2) Small-Scale Group Activity Analysis in Sports Videos, The Natural Science Foundation of China (Grant No.61573045) (01/2016-06/2019)
  - Supervisor: Prof. Yunhong Wang
- 3) Multi-level Human-Being Centered Visual Understanding, The Hong Kong, Macao, and Taiwan Science and Technology Cooperation Program of China (Grant No.L2015TGA9004) (09/2015-09/2017)
  - Supervisor: Prof. Yunhong Wang
- 4) Face Aging Simulation and Estimation Research based on Massive Internet Media Data, The Natural Science Foundation of China (Grant No.F030403) (09/2014-09/2016) Supervisor: Prof. Yunhong Wang & Dr. Di Huang
- 5) Hierarchical Computation Theory and Model of Media Cognition, The National Basic Research Program (Grant No.2010CB327902) ("973 program") (01/2010-01/2014) Supervisor: Prof. Yunhong Wang
- 6) Research and Implementation of Distributed Anomaly Detection System for Data Center (cooperation with Tencent Inc.), The National High-tech Research & Development Program ("863 program") (08/2013-08/2014)
  - Supervisor: Prof. Depei Qian & Prof. Zhongzhi Luan
- 7) Research and Implementation of Graduate Employment Information Public Service Platform, The National Key Technology Research & Development Program (06/2012-06/2013)
  - Supervisor: Prof. Depei Qian & Prof. Zhongzhi Luan

8) Development and Optimization of Chinese Search Engine (cooperation with Sogou.com), Undergraduate Graduation Project (06/2007-06/2008)

Supervisor: Prof. Xiaojie Wang

## **Professional Experience**

Baidu Research Beijing, Aug. 2019-Nov. 2019

Visiting Researcher

Supervisor: Prof. Yi Yang

Beihang University Beijing, Sep. 2014-Jun. 2019

Research Assistant

Supervisor: Prof. Yunhong Wang

Tencent Inc. Beijing, Jun. 2014-Sep. 2014

Research Intern

Supervisor: Dr. Gang Guan

International Game Technology (IGT) Corporation Beijing, Oct. 2011-Apr. 2012

Software Development Intern

Supervisor: Mei Huang

## **Technology Competence**

• Programming Skills: C & C++, Java, Shell, Python, and MATLAB

• Programming Environment & Tools: Vim, Eclipse, Visual Studio, and Sublime Text

• Operating Systems: Linux, Windows

• Open Sources: Pytorch, TensorFlow, OpenCV, Hadoop, and Storm

#### **Honors & Awards**

#### Academic Scholarships

National Scholarship for Graduate Students, Beihang University (2017)

Grant Scholarship of China Scholarship Council, CSC (2017-2018)

Three times recipient of Second Prize Scholarship (Top 15%), Beihang University (2012-2014)

Two times recipient of First Prize Scholarship (Top 10%), Beijing University of Posts and Telecommunications (2010-2012)

Two times recipient of Second Prize Scholarship (Top 15%), Beijing University of Posts and Telecommunications (2008-2010)

#### Academic Awards

Outstanding Graduate Award of Beijing City, Beihang University (2019)

Technological Innovation Award in School of Computer, Beijing University of Posts and Telecommunications (2010-2011)

Twice recipient of Outstanding Student Award, Beijing University of Posts and Telecommunications (2010-2012)