# **BOWEN ZHANG**

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#### **EDUCATION**

### **University of Southern California**

Sept. 2017 - Present

Ph.D. student in Computer Science, Advisor: Prof. Fei Sha.

Overall GPA: 4.0/4.0

Tongji University Sept. 2014 - Mar. 2017

M.Eng. in Computer Technology, Advisor: Prof. Hanli Wang.

Overall GPA: 5.0/5.0 (96.3/100)

Tongji University Sept. 2010 - Jul. 2014

B.Eng. in Computer Science and Technology, Advisor: Prof. Hanli Wang.

Maths Elite Class, Minor in Mathematics.

Overall GPA: 4.52/5.0 (90.23/100)

Best Bachelor Thesis of Tongji University.

#### **RESEARCH INTERESTS**

**Computer Vision** Action Recognition/Detection. **Machine Learning** Deep Learning, Knowledge Transfer.

## RESEARCH EXPERIENCE

## **University of Southern California**

Sept. 2017 - Present

Theoretical & Empirical Data Science Laboratory, Advisor: Prof. Fei Sha

Research Assistant

· We are developing novel methods for video retrieval.

## **SIAT, Chinese Academy of Sciences**

Jul. 2015 - Jul. 2017

Research Center for Integrate Multimedia, Advisor: Prof. Yu Qiao

Visiting Student

- · We developed a real-time action recognition algorithm with CNNs. Our method achieves > 300 fps (frames per second) processing speed with high performance. Our paper is accepted by CVPR'16.
- We developed novel action recognition algorithms that achieve the state-of-the-art performance on untrimmed video classification. We obtained the  $1^{st}$  at the 2016 ActivityNet Challenge on CVPR'16 and the  $2^{nd}$  at the 2017 ActivityNet Challenge on CVPR'17.

Tongji University Sept. 2014 - Mar. 2017

Multimedia and Intelligent Computing Lab, Advisor: Prof. Hanli Wang

Master Student

- · We developed an action recognition algorithm to encode spatial-temporal scale information into Fisher Vector. Our paper is accepted by VCIP'15 as oral presentation.
- $\cdot$  We developed an event detection algorithm that achieves the  $1^{st}$  place on The MediaEval 2015 Affective Impact of Movie Task Challenge.

## **PUBLICATIONS**

1 **Bowen Zhang**, Limin Wang, Zhe Wang, Yu Qiao and Hanli Wang, Real-Time Action Recognition with Deeply-Transferred Motion Vector CNNs, *IEEE Transactions on Image Processing (TIP)*, 2018

- 2 Zhe Wang, Limin Wang, Yali Wang, **Bowen Zhang** and Yu Qiao, Weakly supervised patchnets: Describing and aggregating local patches for scene recognition, *IEEE Transactions on Image Processing (TIP)*, 2017
- 3 **Bowen Zhang**, Limin Wang, Zhe Wang, Yu Qiao and Hanli Wang, Real-time Action Recognition with Enhanced Motion Vector CNNs, *IEEE Conference on Computer Vision and Pattern Recognition (CVPR'16*), Las Vegas, USA, 2016.
- 4 Yuanjun Xiong, Limin Wang, Zhe Wang, **Bowen Zhang**, Hang Song, Wei Li, Dahua Lin, Yu Qiao, Luc Van Gool and Xiaoou Tang, CUHK & ETHZ & SIAT Submission to ActivityNet Challenge 2016, *ActivityNet Large Scale Activity Recognition Challenge*, CVPR'16 Workshop, Las Vegas, USA, 2016.
- 5 **Bowen Zhang** and Hanli Wang, Encoding Scale into Fisher Vector for Human Action Recognition, *IEEE Conference on Visual Communications and Image Processing (VCIP'15)*, Singapore, 2015. (**Oral Presentation**)
- 6 Yun Yi, Hanli Wang, **Bowen Zhang** and Jian Yu, MIC-TJU in MediaEval 2015 Affective Impact of Movies Task, *MediaEval 2015 Workshop*, Wurzen, Germany, 2015.
- 7 **Bowen Zhang**, Yun Yi, Hanli Wang and Jian Yu, MIC-TJU at MediaEval Violent Scenes Detection (VSD) 2014, *MediaEval 2014 Workshop*, Barcelona, Spain, 2014.

#### **CONTESTS**

The ActivityNet Challenge 2017 on CVPR'17: Untrimmed Classification. Rank 2 <sup>nd</sup> .	Jul. 2017
The ActivityNet Challenge 2017 on CVPR'17: Trimmed Classification. Rank 2 <sup>nd</sup> .	Jul. 2017
The ActivityNet Challenge 2017 on CVPR'17: Action Localization. $Rank 2^{nd}$ .	Jul. 2017
The ActivityNet Challenge 2016 on CVPR'16: Untrimmed Video Classification. Rank 1 <sup>st</sup> .	Jul. 2016
LSUN Challenge 2016 on CVPR'16: Scene Classification. $Rank 1^{st}$ .	Jul. 2016
MediaEval'15 Affective Impact. Violence: $Rank$ : $2^{nd}$ ; Valence: $Rank$ : $2^{nd}$ ; Arousal: $Rank$ : $1^{st}$ .	Sept. 2015
MediaEval'14 Affect in Multimedia. Main: Rank: 4 <sup>th</sup> ; Generalization: Rank: 4 <sup>th</sup> .	Sept. 2014

#### HONORS AND AWARDS

Shanghai Outstanding Graduates	2017
National Graduate Scholarship of China	2016
Huawei Scholarship (9 recipients in Tongji University)	2015
Best Bachelor Thesis of Tongji University (2 recipients in CS department)	2014
Be recommended for graduation school with excellent grade (10 recipients in CS department)	2013
Volkswagen Scholarship (3 recipients in CS Department)	2012
Scholarship for Academic Excellence of Tongji University	2011, 2012, 2013
China Undergraduate Mathematical Contest in Modeling (CUMCM) Province Third Prize	2012
The Mathematics Contest in Modeling (MCM) Honorable mention	2012

#### **CODE SKILLS**

Python, Matlab, C/C++

## **ACADEMIC SERVICE**