

BOWEN ZHANG

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MCB 407, 1002 West Childs Way

University of Southern California

EDUCATION

University of Southern California

Sept. 2017 - Present

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

Tongji University

Sept. 2014 - Mar. 2017

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

Tongji University

Sept. 2010 - Jul. 2014

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

Maths Elite Class, Minor in Mathematics.

Best Bachelor Thesis of Tongji University.

RESEARCH INTERESTS

Computer Vision

Action Recognition, Online Action Detection.

Machine Learning

Deep Learning.

Natural Language Processing

Text Summarization.

RESEARCH EXPERIENCE

Google AI

Feb. 2020 -

Manager: Vihan Jain and Eugene Ie

Student Researcher & Research Intern

- Topic: Visual Grounding.

Amazon AWS Rekognition

May. 2019 - Dec. 2019

Manager: Yuanjun Xiong, Hao Chen, and Meng Wang

Intern

- Topic: Online video understanding system for streaming videos

University of Southern California

Sept. 2017 - Present

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

Research Assistant

- Topic: Learning from vision and language

Tencent AI Lab

Jun. 2018 - Aug. 2018

Manager: Boqing Gong

Intern

- Topic: Model-based reinforcement learning

SIAT, Chinese Academy of Sciences

Jul. 2015 - Jul. 2017

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

Visiting Student

- Topic: Real-time video based action recognition system

PREPRINT

- 1 **Bowen Zhang***, Hexiang Hu*, Joonseok Lee, Ming Zhao, Sheide Chammas, Vihan Jain, Eugene Ie, and Fei Sha, A Hierarchical Multi-Modal Encoder for Moment Localization in Video Corpus, arXiv, 2020

- 2 **Bowen Zhang**, Hao Chen, Meng Wang, and Yuanjun Xiong, Online Action Detection in Streaming Videos with Time Buffers, arXiv, 2020

PUBLICATIONS

- 1 **Bowen Zhang**^{*}, Hexiang Hu^{*}, Vihan Jain, Eugene Ie, and Fei Sha, Learning to Represent Images and Texts with Denotation Graphs, *Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2020
- 2 **Bowen Zhang**, Hexiang Hu, and Fei Sha, Visual Storytelling via Predicting Anchor Word Embeddings in the Stories, *ICCV 2019 Workshop on Closing the Loop Between Vision and Language*, 2019
- 3 Melissa Ailem, **Bowen Zhang**, and Fei Sha, Topic Augmented Generator for Abstractive Summarization, arxiv, 2019 (Short version is on BayLearn 2019)
- 4 Melissa Ailem, **Bowen Zhang**, Aurélien Bellet, Pascal Denis, and Fei Sha, A Probabilistic Model for Joint Learning of Word Embeddings from Texts and Images, *Conference on Empirical Methods in Natural Language Processing (EMNLP)*, 2018
- 5 **Bowen Zhang**^{*}, Hexiang Hu^{*}, and Fei Sha, Cross-Modal and Hierarchical Modeling of Video and Text, *European Conference on Computer Vision (ECCV)*, 2018
- 6 **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
- 7 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
- 8 Yue Zhao, **Bowen Zhang**, Zhirong Wu, Shuo Yang, Lei Zhou, Sijie Yan, Limin Wang, Yuanjun Xiong, Dahua Lin, Yu Qiao, and Xiaoou Tang, CUHK & ETHZ & SIAT Submission to ActivityNet Challenge 2017, *ActivityNet Large Scale Activity Recognition Challenge, CVPR'17 Workshop*, Hawaii, USA, 2017.
- 9 **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.
- 10 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.
- 11 **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**)
- 12 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.
- 13 **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. <i>Rank 2/37.</i>	<i>Jul. 2017</i>
The ActivityNet Challenge 2017 on CVPR'17: Trimmed Classification. <i>Rank 2/27.</i>	<i>Jul. 2017</i>
The ActivityNet Challenge 2017 on CVPR'17: Action Localization. <i>Rank 2/15.</i>	<i>Jul. 2017</i>
The ActivityNet Challenge 2016 on CVPR'16: Untrimmed Video Classification. <i>Rank 1/25.</i>	<i>Jul. 2016</i>

LSUN Challenge 2016 on CVPR'16: Scene Classification. <i>Rank</i> 1 st .	<i>Jul. 2016</i>
MediaEval'15 Affective Impact. Violence: <i>Rank</i> : 2 nd ; Valence: <i>Rank</i> : 2 nd ; Arousal: <i>Rank</i> : 1 st .	<i>Sept. 2015</i>
MediaEval'14 Affect in Multimedia. Main: <i>Rank</i> : 4 th ; Generalization: <i>Rank</i> : 4 th .	<i>Sept. 2014</i>

SELECTED HONORS AND AWARDS

Shanghai Outstanding Graduates	<i>2017</i>
National Graduate Scholarship of China	<i>2016</i>
Best Bachelor Thesis of Tongji University (2 recipients in CS department)	<i>2014</i>

ACADEMIC SERVICE

Reviewer for CVPR 2019, 2020, 2021; AAAI 2020, 2021; ECCV 2020; NAACL 2019; ICCV 2019; WACV 2021; ACCV 2021; BMVC 2020; ICML 2020; IJCV Special Issue on Efficient Visual Recognition; and IEEE Transactions on Image Processing.