Zhou Yu

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Biography

Zhou Yu is currently an associate professor with School of Computer Science, Hangzhou Dianzi University. He mainly applies machine learning and deep learning techniques to connect computer vision and natural language. His research interests include visual question answering, visual grounding, visual captioning, cross-media retrieval, etc. He has authored and co-authored 20+ scientific articles at prestigious conferences and journals, e.g., CVPR, ICCV, AAAI, IJCAI, SIGIR, ACMMM, IEEE T-MM, T-NNLS, etc.

Education & Employment

2006 - 2010	Zhejiang University	B.S.
2010 - 2015	Zhejiang University	Ph.D.
2015 - 2016	Alibaba Group	Senior Engineer
2016 - 2018	Hangzhou Dianzi University	Assistant Professor
2019 - present	Hangzhou Dianzi University	Associate Professor

Awards

- [1]. **1st place** (1/41) in VQA Challenge 2019, [Team Leader]
- [2]. 1st place (1/224) in MSCOCO Image Captioning Leaderboard (Apr. 2019), [Team Leader]
- [3]. **2nd place** (2/44) in VQA Challenge 2018, [Team Leader]
- [4]. 2nd place (2/28) in VQA Challenge 2017, [Team Leader]

Professional Activities

- [1]. **Invited Reviewer** of international journals including: *IEEE T-PAMI, IEEE T-IP, IEEE T-MM, IEEE T-CSVT, IEEE T-NNLS, ACM TOMM, Pattern Recognition, Signal Processing, Information Science, Neuro-computing, Multimedia Tools and Applications, Neural Processing Letters.*
- [2]. **PC member** of international conferences including: *IJCAI* (2018,2019, 2020), *AAAI* (2019, 2020), *CIKM* (2019), *ICDM* (2019, 2020).

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Selected Publications (in chronological order)

Journal Articles

[1]. Ting Yu, Jun Yu, Zhou Yu, Qingming Huang, Qi Tian, "Long-Term Video Question Answering via Multimodal Hierarchical Memory Attentive Networks", IEEE Transactions on Circuits and Systems for Video Technology (T-CSVT), 2020

- [2]. Jun Yu, Jinghan Yao, Jian Zhang, Zhou Yu, Dacheng Tao, "Single Pixel Reconstruction for One-stage Instance Segmentation", IEEE Transactions on Cybernetics (T-CYB), 2020
- [3]. Jun Yu, Jing Li, Zhou Yu[†], Qingming Huang, "Multimodal Transformer with Multi-View Visual Representation for Image Captioning", *IEEE Transactions on Circuits and Systems for Video Technology (T-CSVT)*, 2020 (†corresponding author)
- [4]. Ting Yu, Jun Yu, Zhou Yu, Dacheng Tao, "Compositional Attention Networks with Two-Stream Fusion for Video Question Answering", IEEE Transactions on Image Processing (T-IP), 2020
- [5]. Zhou Yu, Jun Yu, Chenchao Xiang, Jianping Fan, Dacheng Tao, "Beyond Bilinear: Generalized Multimodal Factorized High-order Pooling for Visual Question Answering", IEEE Transactions on Neural Networks and Learning Systems (T-NNLS), 29 (12): 5947-5959, 2018
- [6]. Min Tan, Jun Yu, Zhou Yu, Fei Gao, Yong Rui, Dacheng Tao, "User-Click-Data-Based Fine-Grained Image Recognition via Weakly Supervised Metric Learning", ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM), 14 (3): 70, 2018.
- [7]. Fei Wu, Zhou Yu, Yi Yang, Siliang Tang, Yin Zhang, Yueting Zhuang, "Sparse Multi-Modal Hashing", *IEEE Transactions on Multimedia (T-MM)*, 16(2): 427-439, 2014

Conference Articles

- [1]. Zhou Yu, Yuhao Cui, Jun Yu, Dacheng Tao, Qi Tian, "Deep Multimodal Neural Architecture Search", *ACM International Conference on Multimedia (ACM MM)*, Seattle, USA, 2020
- [2]. Zhou Yu, Jun Yu, Yuhao Cui, Dacheng Tao, Qi Tian, "Deep Modular Co-Attention Networks for Visual Question Answering", IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Long Beach, USA, 2019
- [3]. Zhou Yu, Dejing Xu, Jun Yu, Ting Yu, Zhou Zhao, Yueting Zhuang, Dacheng Tao, "ActivityNet-QA: A Dataset for Understanding Complex Web Videos via Question Answering", AAAI Conference on Artificial Intelligence (AAAI), Honolulu, USA, 2019
- [4]. Zhou Yu, Jun Yu, Chenchao Xiang, Zhou Zhao, Qi Tian, Dacheng Tao, "Rethinking Diversified and Discriminative Proposal Generation for Visual Grounding", International Joint Conference on Artificial Intelligence (IJCAI), Stockholm, Sweden, 2018
- [5]. Zhou Zhao, Zhu Zhang, Shuwen Xiao, Zhou Yu, Jun Yu, Deng Cai, Fei Wu, Yueting Zhuang, "Open-Ended Long-form Video Question Answering via Adaptive Hierarchical Reinforced Networks", International Joint Conference on Artificial Intelligence (IJCAI), Stockholm, Sweden, 2018
- [6]. Yibing Zhan, Jun Yu, Zhou Yu, Rong Zhang, Dacheng Tao, Qi Tian, "Comprehensive Distance-Preserving Autoencoders for Cross-Modal Retrieval", ACM Conference on Multimedia (ACM MM), Seoul, Korea, 2018

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[7]. Zhou Yu, Jun Yu, Jianping Fan, Dacheng Tao, "Multi-modal Factorized Bilinear Pooling with Coattention Learning for Visual Question Answering", *International Conference on Computer Vision (ICCV)*, Venice, Italy, 2017

- [8]. Zhou Yu, Fei Wu, Yi Yang, Qi Tian, Jiebo Luo, Yueting Zhuang, "Discriminative Coupled Dictionary Hashing for Fast Cross-Media Retrieval", ACM Special Interest Group on Information Retrieval (SIGIR), Gold Coast, Australia, 2014
- [9]. Zhou Yu, Fei Wu, Yin Zhang, Siliang Tang, Jian Shao, Yueting Zhuang, "Hashing with List-wise Learning to Rank", ACM Special Interest Group on Information Retrieval (SIGIR), Gold Coast, Australia, 2014
- [10]. Yueting Zhuang, Zhou Yu, Wei Wang, Fei Wu, Siliang Tang, Jian Shao, "Cross-media hashing with neural networks", ACM Conference on Multimedia (ACM MM), Orlando, USA, 2014.

Preprint Articles

[1]. Zhou Yu*, Yuhao Cui*, Jun Yu, Dacheng Tao, Qi Tian, "Multimodal Unified Attention Networks for Vision-and-Language Interactions", arXiv preprint arXiv:1908.04107, 2019 (*equal contribution)

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