

Yuanhao Zhai

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EDUCATION

- State University of New York at Buffalo**, Buffalo, NY, USA Feb 2021 - 2025 (Expected)
- PhD student in Computer Science & Engineering.
 - Advisors: Prof. Junsong Yuan and Prof. David Doermann.
- Xi'an Jiaotong University**, Xi'an, China Sep 2016 - July 2020
- Bachelor of Engineering in Computer Science.
 - Advisors: Ziyi Liu and Prof. Le Wang.
 - Outstanding Graduate Award
- University of California, Berkeley**, Berkeley, CA, USA Jan 2019 - May 2019
- Exchange student of the Berkeley International Study Program.

RESEARCH EXPERIENCE

- Microsoft**, Remote May 2023 - Aug 2023, Feb 2024 - Present
Research intern
Topic: Human-centric dual-modal diffusion models
Mentors: Kevin Lin, Lindsey Li, Chung-Ching Lin, Jianfeng Wang, Zhengyuan Yang, Zicheng Liu and Lijuan Wang
- Wormpex AI Research**, Bellevue, WA, USA May 2022 - Aug 2022
Research intern
Topic: Human action analysis and open-set recognition
Mentors: Ziyi Liu, Zhenyu Wu, Yi Wu, Chunluan Zhou and Gang Hua
- Institute for Artificial Intelligence and Data Science**, University at Buffalo, Buffalo, NY, USA
Research assistant Aug 2021 - Present
Topic: Image manipulation detection and Deepfakes detection
Mentors: Prof. Junsong Yuan and Prof. David Doermann
- Institute of Artificial Intelligence and Robotics**, Xi'an Jiaotong University, Xi'an, China
Research intern Feb 2018 - July 2021
Topic: Temporal action localization and weakly-supervised learning
Mentors: Ziyi Liu and Prof. Le Wang

PUBLICATIONS

Google Scholar: <https://scholar.google.com/citations?user=AeU2HdYAAAAJ>

Preprints

1. Tan Wang, Linjie Li, Kevin Lin, Yuanhao Zhai, Chung-Ching Lin, Zhengyuan Yang, Hanwang Zhang, Zicheng Liu, and Lijuan Wang, "DisCo: Disentangled Control for Referring Human Dance Generation in Real World", arXiv preprint arXiv:2307.00040 (2023).

Conference Publications

1. Yuanhao Zhai, Mingzhen Huang, Tianyu Luan, Lu Dong, Ifeoma Nwogu, Siwei Lyu, David Doermann, and Junsong Yuan, “Language-guided Human Motion Synthesis with Atomic Actions”, in ACM Multimedia (MM), 2023.
2. Yuanhao Zhai, Ziyi Liu, Zhenyu Wu, Yi Wu, Chunluan Zhou, David Doermann, Junsong Yuan, and Gang Hua, “SOAR: Scene-debiasing Open-set Action Recognition”, in IEEE International Conference on Computer Vision (ICCV), 2023.
3. Yuanhao Zhai, Tianyu Luan, David Doermann, and Junsong Yuan, “Towards Generic Image Manipulation Detection with Weakly-Supervised Self-Consistency Learning”, in IEEE International Conference on Computer Vision (ICCV), 2023.
4. Tianyu Luan, Yuanhao Zhai, Jingjing Meng, Zhong Li, Zhang Chen, Yi Xu, and Junsong Yuan, “High Fidelity 3D Hand Shape Reconstruction via Scalable Graph Frequency Decomposition”, in IEEE Computer Vision and Pattern Recognition (CVPR), 2023.
5. Yuanhao Zhai, Le Wang, Wei Tang, Qilin Zhang, Junsong Yuan, and Gang Hua, “Two-Stream Consensus Network for Weakly-Supervised Temporal Action Localization”, in European Conference on Computer Vision (ECCV), pp. 37-54, 2020. (**Spotlight**)
6. Yuanhao Zhai, Le Wang, Ziyi Liu, Qilin Zhang, Gang Hua, and Nanning Zheng, “Action Coherence Network for Weakly Supervised Temporal Action Localization”, in IEEE International Conference on Image Processing (ICIP), pp. 918-922, 2019.

Journal Publications

1. Yuanhao Zhai, Le Wang, Wei Tang, Qilin Zhang, Nanning Zheng, David Doermann, Junsong Yuan, and Gang Hua, “Adaptive Two-Stream Consensus Network for Weakly-Supervised Temporal Action Localization”, in IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2022.
2. Yuanhao Zhai, Le Wang, Wei Tang, Qilin Zhang, Nanning Zheng, and Gang Hua, “Action Coherence Network for Weakly-Supervised Temporal Action Localization”, in IEEE Transactions on Multimedia (TMM), vol. 24, pp. 1857-1870, 2022.
3. Le Wang, Rizhi Ding, Yuanhao Zhai, Qilin Zhang, Wei Tang, Nanning Zheng, and Gang Hua, “Giant Panda Identification”, IEEE Transactions on Image Processing (TIP), vol. 30, pp. 2837-2849, 2021.

HONORS & AWARDS

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| Runner Up , CVPR’2021 HACS Weakly-Supervised Temporal Action Localization Challenge | 2021 |
| Ji Ke Prize (8-th/763 teams), Alibaba Tianchi Temporal Action Localization Competition | 2020 |
| Outstanding Graduate (Top 15%), Xi’an Jiaotong University | 2020 |
| Excellent Student (Top 15%), Xi’an Jiaotong University | 2017, 2018, 2019 |
| Peng Kang Scholarship (Top 3%), Xi’an Jiaotong University | 2017 |

PROFESSIONAL SERVICES

Conference Reviewer

- IEEE Conf. on Computer Vision and Pattern Recognition (CVPR) 2022, 2024
- IEEE International Conference on Computer Vision (ICCV) 2023
- European Conf. on Computer Vision (ECCV) 2022, 2024

- IEEE International Conf. on Automatic Face and Gesture Recognition (FG)

2021, 2023

Journal Reviewer

- IEEE Trans. on Pattern Analysis and Machine Intelligence (TPAMI)
- International Journal of Computer Vision (IJCV)
- IEEE Trans. on Image Processing (TIP)
- IEEE Trans. on Multimedia (TMM)
- IEEE Intelligent Systems
- Journal of Visual Communication and Image Representation
- Machine Vision and Applications