Wentao Zhu

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2018 - 2019

APPOINTMENTS

Tenure-Track Assistant Professor, Eastern Institute of Technology, Ningbo 2025 - Present **EDUCATION** Peking University Ph.D. in Computer Science 2020 - 2025 Peking University Bachelor of Science, Computer Science and Economics (Dual Degree) 2016 - 2020 Stanford University Exchange Student, International Honors Program 2018 RESEARCH EXPERIENCE Research Internship, Qualcomm AI Research 2024 2020 - 2022 Research Internship, Shanghai AI Lab Research Internship, SenseTime Research 2019 - 2020

RESEARCH INTEREST

Human-aware AI, 3D Vision, Embodied AI, Foundation Models

Visiting Student, The Chinese University of Hong Kong (MMLab)

PUBLICATIONS

- 1. **W. Zhu**, Z. Zhang, Y. Ren, Y. Huang, H. Xu, and Y. Wang, "Embodied Representation Alignment with Mirror Neurons," IEEE/CVF International Conference on Computer Vision (ICCV), 2025.
- 2. J. Qin, S. Ban, **W. Zhu**[†], Y. Wang, and D. Samaras, "Learning Human-aware Robot Policies for Adaptive Assistance," IEEE Robotics and Automation Letters (RA-L), 2025.

- 3. Y. Wang, Y. Zhou, Y. Lin, H. Chen, J. Zhang, **W. Zhu**, J. Hong, and X. Li, "Dynamic Model-Bank Test-Time Adaptation for Automatic Speech Recognition," Conference on Empirical Methods in Natural Language Processing (EMNLP), 2025.
- 4. S. Zhao, Z. Wang, T. Luan, J. Jia, **W. Zhu**, J. Luo, J. Yuan, and N. Xi, "PP-Motion: Physical-Perceptual Fidelity Evaluation for Human Motion Generation," ACM International Conference on Multimedia (MM), 2025.
- 5. H. Ye, X. Ma, H. Ci, **W. Zhu**, and Y. Wang, "FreeCloth: Free-form Generation Enhances Challenging Clothed Human Modeling," IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2025.
- 6. X. Ma, J. Su, Y. Xu, **W. Zhu**, C. Wang, and Y. Wang, "VMarker-Pro: Probabilistic 3D Human Mesh Estimation from Virtual Markers," IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2025.
- 7. H. Wang*, **W. Zhu***, L. Miao, Y. Xu, F. Gao, Q. Tian, and Y. Wang, "Aligning Human Motion Generation with Human Perceptions," International Conference on Learning Representations (ICLR), 2025.
- 8. S. Ban, J. Fan, X. Ma, **W. Zhu**[†], Y. Qiao[†], and Y. Wang, "Real-time Holistic Robot Pose Estimation with Unknown States," European Conference on Computer Vision (ECCV), 2024.
- 9. **W. Zhu**, Z. Zhang, and Y. Wang, "Language Models Represent Beliefs of Self and Others," International Conference on Machine Learning (ICML), 2024.
- 10. **W. Zhu***, X. Ma*, D. Ro*, H. Ci, J. Zhang, J. Shi, F. Gao, Q. Tian, and Y. Wang, "Human Motion Generation: A Survey," IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2024.
- 11. Y. Xu, X. Ma, J. Su, **W. Zhu**, Y. Qiao, and Y. Wang, "ScoreHypo: Probabilistic Human Mesh Estimation with Hypothesis Scoring," IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2024.
- 12. **W. Zhu***, J. Qin*, Y, Lou, H. Ye, X. Ma, H. Ci, and Y. Wang, "Social Motion Prediction with Cognitive Hierarchies," Conference on Neural Information Processing Systems (NeurIPS), 2023.
- 13. X. Ma*, S. Kaufhold*, S. Su*, **W. Zhu**, J. Terwilliger, A. Meza, Y. Zhu, F. Rossano, and Y. Wang, "ChimpACT: A Longitudinal Dataset for Understanding Chimpanzee Behaviors," Conference on Neural Information Processing Systems (NeurIPS), 2023.
- 14. **W. Zhu**, X. Ma, Z. Liu, L. Liu, W. Wu, and Y. Wang, "MotionBERT: A Unified Perspective on Learning Human Motion Representations," IEEE/CVF International Conference on Computer Vision (ICCV), 2023.

- 15. H. Ci, M. Wu, **W. Zhu**, X. Ma, H. Dong, F. Zhong, and Y. Wang, "GFPose: Learning 3D Human Pose Prior with Gradient Fields," IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023.
- 16. X. Ma, C. Wang, J. Su, **W. Zhu**, and Y. Wang, "3D Human Mesh Estimation from Virtual Markers," IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023.
- 17. H. Ye*, **W. Zhu***, C. Wang, R. Wu, and Y. Wang, "Faster VoxelPose: Real-time 3D Human Pose Estimation by Orthographic Projection," European Conference on Computer Vision (ECCV), 2022.
- 18. H. Zhu*, W. Wu*, W. Zhu, L. Jiang, S. Tang, L. Zhang, Z. Liu, and C. C. Loy, "CelebV-HQ: A Large-scale Video Facial Attributes Dataset," European Conference on Computer Vision (ECCV), 2022.
- 19. **W. Zhu***, Z. Yang*, Z. Di, W. Wu, Y. Wang, and C. C. Loy, "MoCaNet: Motion Retargeting in-the-wild via Canonicalization Networks," AAAI Conference on Artificial Intelligence (AAAI), 2022.
- 20. Z. Yang*, **W. Zhu***, W. Wu, C. Qian, Q. Zhou, B. Zhou, and C. C. Loy, "TransMoMo: Invariance-Driven Unsupervised Video Motion Retargeting," IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2020.

SERVICES

Area Chair

NeurIPS 2025

Reviewer / PC Member

Conference: CVPR, ECCV, ICCV, ICLR, AAAI, NeurIPS, ICML, IEEE VR, SIGGRAPH Asia

Journal: TPAMI, IJCV, TOG, TVCG, TIP

Workshop Organization

The 1st Workshop on Humanoid Agents @ CVPR 2025

Populating Empty Cities Virtual Humans for Robotics and Autonomous Driving @ CVPR 2024

TEACHING

| Robot Vision and Learning (TA, Graduate Course in English), Peking University | 2022 |
|---|------|
| Practice of Programming in C & C++ (TA), Peking University | 2021 |
| Career Planning and Leadership Development (TA), Peking University | 2020 |

^{* =} equal contributions, † = corresponding author.

AWARDS AND HONORS

| National Scholarship, Peking University | 2024 |
|---|------|
| Merit Student, Peking University | 2024 |
| Top Reviewer, NeurIPS 2023 | 2023 |
| Ubiquant Scholarship, Peking University | 2023 |
| Award for Research Excellence, Peking University | 2023 |
| AAAI-22 Scholarship | 2022 |
| Grand Prize, Challenge Cup of Peking University | 2021 |
| Sino Scholarship, Peking University | 2018 |
| WWDC Scholarship, Apple Inc. | 2018 |
| Meritorious Winner, COMAP's Interdisciplinary Contest in Modeling | 2018 |
| Gold Prize and Best Information Processing Project Nomination, iGEM Competition | 2017 |

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