

XIAOXUAN MA

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EDUCATION

Ph.D. Candidate in Computer Science

09 / 2021 – 07 / 2025 (expected)

School of Computer Science, Peking University

Advisor: Prof. Yizhou Wang

M.S. in Computer Science

09 / 2018 – 07 / 2021

School of Electronics Engineering and Computer Science, Peking University

Advisor: Prof. Yizhou Wang

B.S. in Computer Science

09 / 2014 – 07 / 2018

School of Electronics Engineering and Computer Science, Peking University

RESEARCH INTEREST

- Intersection of computer vision and computer graphics, with a special focus on Digital Humans
- AI-assisted wildlife understanding and welfare

INTERNSHIP EXPERIENCE

Research Intern

01 / 2022 – 08 / 2022

Intelligent Multimedia Group, Microsoft Research Asia

- Monocular 3D human mesh estimation
- Monocular absolute 3D human pose estimation

Mentor: Principal Researcher Chunyu Wang

PREPRINTS & UNDER REVIEW

1. FreeCloth: Free-form Generation Enhances Challenging Clothed Human Modeling. Under review, 2024.
Hang Ye[†], Xiaoxuan Ma, Hai Ci, Wentao Zhu, Yizhou Wang
2. Efficient Action Counting with Dynamic Queries. arXiv preprint arXiv:2403.01543.
Zishi Li[†], Xiaoxuan Ma, Qiuyan Shang[†], Wentao Zhu, Hai Ci, Yu Qiao, Yizhou Wang
3. Real-time Holistic Robot Pose Estimation with Unknown States. arXiv preprint arXiv:2402.05655.
Shikun Ban[†], Juling Fan[†], Wentao Zhu, Xiaoxuan Ma, Yu Qiao, Yizhou Wang

[†] students co-mentored by me.

JOURNAL PUBLICATIONS

1. Human Motion Generation: A Survey. **IEEE TPAMI**, 2023.
Wentao Zhu, Xiaoxuan Ma*, Dongwoo Ro*, Hai Ci, Jinlu Zhang, Jiaxin Shi, Feng Gao, Qi Tian, Yizhou Wang*
2. Locally Connected Network for Monocular 3D Human Pose Estimation. **IEEE TPAMI**, 2022.
Hai Ci, Xiaoxuan Ma*, Chunyu Wang, Yizhou Wang.*

* equal contribution.

CONFERENCE PUBLICATIONS

1. ScoreHypo: Probabilistic Human Mesh Estimation with Hypothesis Scoring. **CVPR**, 2024.
Yuan Xu[†], Xiaoxuan Ma, Jiajun Su, Wentao Zhu, Yu Qiao, Yizhou Wang

2. Scaling Up Dynamic Human-Scene Interaction Modeling. **CVPR**, 2024.
*Nan Jiang**, *Zhiyuan Zhang**, *Hongjie Li*, **Xiaoxuan Ma**, *Zan Wang*, *Yixin Chen*, *Tengyu Liu*, *Yixin Zhu*, *Siyuan Huang*
 3. ChimpACT: A Longitudinal Dataset for Understanding Chimpanzee Behaviors. **NeurIPS**, 2023.
Xiaoxuan Ma*, *Stephan P. Kaufhold**, *Jiajun Su**, *Wentao Zhu*, *Jack Terwilliger*, *Andres Meza*, *Yixin Zhu*, *Federico Rossano*, *Yizhou Wang*
 4. Social Motion Prediction with Cognitive Hierarchies. **NeurIPS**, 2023.
*Wentao Zhu**, *Jason Qin**, *Yuke Lou*, *Hang Ye*, **Xiaoxuan Ma**, *Hai Ci*, *Yizhou Wang*
 5. Learning Human Motion Representations: A Unified Perspective. **ICCV**, 2023.
Wentao Zhu, **Xiaoxuan Ma**, *Zhaoyang Liu*, *Libin Liu*, *Wayne Wu*, *Yizhou Wang*
 6. 3D Human Mesh Estimation from Virtual Markers. **CVPR**, 2023.
Xiaoxuan Ma, *Jiajun Su*, *Chunyu Wang*, *Wentao Zhu*, *Yizhou Wang*.
 7. GfPose: Learning 3D Human Pose Prior with Gradient Fields. **CVPR**, 2023.
Hai Ci, *Mingdong Wu*, *Wentao Zhu*, **Xiaoxuan Ma**, *Hao Dong*, *Fangwei Zhong*, *Yizhou Wang*.
 8. Virtual Pose: Learning Generalizable 3D Human Pose Models from Virtual Data. **ECCV**, 2022.
Jiajun Su, *Chunyu Wang*, **Xiaoxuan Ma**, *Wenjun Zeng*, *Yizhou Wang*.
 9. Context Modeling in 3D Human Pose Estimation: A Unified Perspective. **CVPR**, 2021.
Xiaoxuan Ma*, *Jiajun Su**, *Chunyu Wang*, *Hai Ci*, *Yizhou Wang*.
 10. Optimizing Network Structure for 3D Human Pose Estimation. **ICCV**, 2019.
Hai Ci, *Chunyu Wang*, **Xiaoxuan Ma**, *Yizhou Wang*.
- * equal contribution. † students co-mentored by me.

SELECTED AWARDS AND HONORS

• The Third Prize Scholarship, Peking University	2023
• Award for Scientific Research, Peking University	2023
• Award for Scientific Research, Peking University	2022
• Grand Prize of the 29 th Challenge Cup, Peking University	2021
• Cushman & Wakefield Scholarship, Peking University	2020
• Outstanding Student, Peking University	2020
• Outstanding Undergraduate Thesis, Peking University	2018

PROFESSIONAL SERVICE

Journal Reviewer: IEEE TPAMI, IJCV, IEEE TMM
 Conference Reviewer: CVPR, ICCV, ECCV, NeurIPS, ICLR, AAAI