

Wei Mao, Tencent, Canberra

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Level 4, Suite 02, 60 Marcus Clarke Street, Canberra, Australia, 2601

Education

- 2018 – 2022 ■ **Ph.D., Australian National University, Canberra, Australia.**
Research topic: *3D Human Understanding*
Supervisor: Dr. Miaomiao Liu.
Working closely with Dr. Mathieu Salzmann from EPFL
Thesis: Human Motion Prediction: From Deterministic to Stochastic
- 2016 – 2018 ■ **Master of Computing (advanced), Australian National University, Canberra, Australia.**
Specialisations: Artificial Intelligence
- 2009 – 2013 ■ **Bachelor of Engineering, East China University of Science and Technology, Shanghai, China.**
Major: Information Engineering

Employment History

- 2024 – now ■ **Senior Research Scientist, Tencent, Canberra, Australia.**
Working on: 3D AIGC for games.
- 2022 – 2024 ■ **Postdoc, Australian National University, Canberra, Australia.**
(Expect to finish at Jan. 2024)
Supervisor: Prof. Richard Hartley, Dr. Miaomiao Liu.
- 2013 – 2016 ■ **Software Engineer, Dongyuan Computer Automation Engineering Co.,Ltd., Shanghai, China**

Publications

Journal Articles






- 1 **Mao, W.**, Liu, M., Salzmann, M., & Li, H. (2021). Multi-level motion attention for human motion prediction. *International Journal of Computer Vision (IJCV)*.
- 2 Yang, J., **Mao, W.**, Alvarez, J. M., & Liu, M. (2021). Cost volume pyramid based depth inference for multi-view stereo. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*.

Conference Proceedings


- 1 Gao, H., **Mao, W.**, & Liu, M. (2023). *Visfusion: visibility-aware online 3d scene reconstruction from videos*. Conference on Computer Vision and Pattern Recognition (CVPR).
- 2 Wang, R., **Mao, W.**, & Li, H. (2023a). *Deepsimho: stable pose estimation for hand-object interaction via physics simulation*. Neural Information Processing Systems (NeurIPS).
- 3 Wang, R., **Mao, W.**, & Li, H. (2023b). *Interacting hand-object pose estimation via dense mutual attention*. Winter Conference on Applications of Computer Vision (WACV).
- 4 **Mao, W.**, Liu, M., Hartley, R., & Salzmann, M. (2022). *Contact-aware human motion forecasting*. Advances in Neural Information Processing Systems (NeurIPS) **Spotlight**.

- 5 **Mao, W.**, Liu, M., & Salzmann, M. (2022). *Weakly-supervised action transition learning for stochastic human motion prediction*. Conference on Computer Vision and Pattern Recognition (CVPR) **ORAL**.
- 6 **Mao, W.**, Liu, M., & Salzmann, M. (2021). *Generating smooth pose sequences for diverse human motion prediction*. International Conference on Computer Vision (ICCV) **ORAL**.
- 7 **Mao, W.**, Liu, M., & Salzmann, M. (2020). *History repeats itself: human motion prediction via motion attention*. European Conference on Computer Vision (ECCV).
- 8 Yang, J., **Mao, W.**, Alvarez, J. M., & Liu, M. (2020). *Cost volume pyramid based depth inference for multi-view stereo*. Conference on Computer Vision and Pattern Recognition (CVPR) **ORAL**.
- 9 **Mao, W.**, Liu, M., Salzmann, M., & Li, H. (2019). *Learning trajectory dependencies for human motion prediction*. International Conference on Computer Vision (ICCV) **ORAL**.




Teaching

- 2022,2023  **Guest Lecturer:** Advanced Computer Vision (ENGN8501), ANU.
- 2021  **Tutor:** Artificial Intelligence (COMP3620), Computer Vision (ENGN6528), ANU.
- 2019  **Tutor:** Computer Vision (ENGN6528), ANU.
- 2018  **Tutor:** Artificial Intelligence (COMP3620), Relational Database (COMP6240), ANU.
- 2017  **Tutor:** Relational Database (COMP6240), ANU.

Academic Service

- Reviewer  **CVPR:** 2021,2022,2023; **ICCV:** 2021,2023; **IJCAI:** 2022,2023; **ICML:** 2022,2023; **NeurIPS:** 2021,2022; **RAL:** 2021,2022,2023; **ICLR:** 2024.

Honour

- 2022  **NeurIPS Top Reviewer**
-  **CVPR Outstanding Reviewer**
- 2019  **ICCV Student Travel Award**