Jian Wang

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📖 Summary of my research works

PhD topic   Egocentric Human Motion Capture

Details   My works mainly aims at capturing human motion from head-mounted egocentric fisheye camera, including (1) global motion estimation with generative motion prior (2) creating various synthetic and in-the-wild egocentric dataset (3) modeling egocentric human-scene interactions and (4) expressive human motion capture. Furthermore, my recent works extends beyond (1) human motion capture from stereo egocentric camera and (2) reconstructing photo-realistic motion-dependent appearance from egocentric view.

Research Interest   Egocentric Vision, Human Motion Capture, Human Appearance Reconstruction, Program Verification.

🎓 Education

Max Planck Institute for Informatics   April 2020 - Present

Ph.D. Student in Computer Vision and Computer Graphics

Institute of Software, Chinese Academy of Sciences   September 2016 - July 2019

Master's Degree of Science in Engineering   GPA: 3.68/4.00, Rank: 11/105
⋆ High Performance Scholarship in 2018 (Top 10%)

Peking University   September 2012 - July 2016

Bachelor Degree of Science in Chemistry   GPA: 3.44/4.00, Rank: 40/154
⋆ Pioneer Scholarship in 2013 (Top 20%)

🔭 Research Papers

[1] **Wang, J.**, Luvizon, D., Xu, W., Liu, L., Sarkar, K. and Theobalt, C., 2023. Scene-aware Egocentric 3D Human Pose Estimation. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*. (**CVPR**).

[2] Akada, H., **Wang, J.**, Shimada, S., Takahashi, M., Theobalt, C. and Golyanik, V., 2022, October. UnrealEgo: A new dataset for robust egocentric 3d human motion capture. In *European Conference on Computer Vision*. (**ECCV**).

[3] **Wang, J.**, Liu, L., Xu, W., Sarkar, K., Luvizon, D. and Theobalt, C., 2022. Estimating egocentric 3d human pose in the wild with external weak supervision. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*. (**CVPR**).

[4] **Wang, J.**, Liu, L., Xu, W., Sarkar, K. and Theobalt, C., 2021. Estimating egocentric 3d human pose in global space. In *Proceedings of the IEEE/CVF International Conference on Computer Vision*. (**ICCV Oral**).

[5] **Wang, J.**, Zhong, Y., Li, Y., Zhang, C. and Wei, Y., 2019. Re-identification supervised texture generation. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition*. (**CVPR**).

[6] Chen, M., **Wang, J.**, An, J., Zhan, B., Kapur, D. and Zhan, N., 2019, August. NIL: learning nonlinear interpolants. In *International Conference on Automated Deduction*. (**CADE**)

[7] **Wang, J.**, An, J., Chen, M., Zhan, N., Wang, L., Zhang, M. and Gan, T., 2020. From model to implementation: a network algorithm programming language. *Science China Information Sciences*, 63, pp.1-17.

💼 Internship Experiences

Research Intern
2019.11 - 2020.04
Max Planck Institute for Informatics
Performed Research in ego-centric motion capture.

Research Intern
2018.06 - 2018.11
Face++ (Megvii Technology Ltd.)
Performed Research in 3D human body reconstruction and new methods to generate human textures from a single image.

Research Intern
2017.10 - 2018.02
Institute of Automation, Chinese Academy of Sciences
Employed reinforcement learning algorithms for micro- and macro-management in the StarCraft combat environment.

Software Engineer Intern
2016.12 - 2017.06
Baidu Online Network Technology (Beijing) Co., Ltd.
Designed the table line detection algorithm and developed the table OCR system serving thousands of consumers.

★ Miscellaneous

Invited Talks   Joint Ego4D & EPIC workshop @ ICCV2021, CVPR 2022, and CVPR 2023

Reviewer Experience   CVPR 2022 and ECCV 2022

Teaching Experience   Computer Vision and Machine Learning for Computer Graphics in 2021, 2022, and 2023