Jing Lin

Contact Information	Tsinghua University, China	jinglin.stu@gmail.com
	Homepage: https://jinglin7.github.io	Google Scholar GitHub

Research Interests

Human-centric Large Foundation Model and Agent
3D Human-Scene Perception and Generation
Image and Video Restoration

Education

Tsinghua University, China — Oct 2021 – Jun 2024

Master, GPA: 3.83/4.0,
Major: Electronic Information, Advisor: Haoqian Wang

Harbin Institute of Technology (Shenzhen), China — Oct 2017 – Jun 2021

Bachelor, GPA: 91.294/100,
Major: Department of Automation

Project Experience

Human-centric Large Foundation Model and Agent — July 2022 – Sept 2023

- Propose ChatPose, a multi-model LLM designed for chatting about human pose that produces 3D human poses (SMPL pose parameters) upon user request (CVPR 2024).
- Propose ChatHuman, a multi-modal LLM-based agent that is specialized for understanding humans and their 3D behavior with the assistance of 24 human-related experts.

3D Human-Scene Perception from In-the-Wild Images/Videos — July 2022 – Sept 2023

- Develop a one-stage method OSX and build an upper-body dataset UBody for whole-body human mesh recovery (CVPR 2023).
- Design an automatic pipeline to annotate large-scale high-quality 3D human motion from in-the-wild videos and build a text-motion dataset Motion-X (NeurIPS 2023).

Grounded-Segment-Anything — Mar 2023 – Sept 2023

- Combine OSX with grounded-SAM and support promptable 3D human mesh recovery.
- Maintain the project GitHub repository (11K stars) and address raised issues.

Selected Publications

I have published 7 papers as the first or co-first author, including 2×ICML, 2×CVPR, 1×ECCV, 2×NeurIPS. According to Google Scholar, I have obtained 1833 citations.

1. **Jing Lin**, Yao Feng, Weiyang Liu, Michael J. Black, "ChatHuman: Chatting about 3D Humans with Tools", **CVPR** 2025, [Code] [Star: 56]
2. Yao Feng, **Jing Lin**, Sai Kumar Dwivedi, Yu Sun, Priyanka Patel, Michael J. Black, "ChatPose: Chatting about 3D Human Pose", **CVPR** 2024, [Code] [Star: 214]
3. **Jing Lin***[1], Ailing Zeng*, Shunlin Lu*, Yuanhao Cai, Ruimao Zhang, Haoqian Wang, Lei Zhang, "Motion-X: A Large-scale 3D Expressive Whole-body Human Motion Dataset", **NeurIPS** 2023. [Code] [Star: 552]

[1] ⋆ indicates equal contribution.

4. **Jing Lin**, Ailing Zeng, Haoqian Wang, Lei Zhang, Li Yu, "One-Stage 3D Whole-Body Mesh Recovery with Component Aware Transformer", **CVPR** 2023. [Code] [Star: 653]

5. **Jing Lin***, Yuanhao Cai*, Xiaowan Hu, Haoqian Wang, Youliang Yan, Xueyi Zou, Henghui Ding, Yulun Zhang, Radu Timofte, and Luc Van Gool. "Flow-Guided Sparse Transformer for Video Deblurring", **ICML** 2022. [Code] [153]

6. **Jing Lin***, Xiaowan Hu*, Yuanhao Cai, Haoqian Wang, Youliang Yan, Xueyi Zou, Yulun Zhang, Luc Van Gool. "Unsupervised Flow-Aligned Sequence-to-Sequence Learn-ing for Video Restoration", **ICML** 2022.[Code] [Star: 153]

7. Yuanhao Cai*, **Jing Lin***, Xiaowan Hu, Haoqian Wang, Xin Yuan, Yulun Zhang, Radu Timofte, Luc Van Gool. "Coarse-to-Fine Sparse Transformer for Hyperspectral Image Reconstruction", **ECCV** 2022. [Code] [Star: 449]

8. Yuanhao Cai*, **Jing Lin***, Xiaowan Hu, Haoqian Wang, Xin Yuan, Yulun Zhang, Radu Timofte, and Luc Van Gool. "Mask-Guided Spectral-Wise Transformer for Efficient Hyperspectral Image Reconstruction", **CVPR** 2022. [Code] [Star: 644]

9. Yuanhao Cai*, **Jing Lin***, Haoqian Wang, Xin Yuan, Henghui Ding, Yulun Zhang, Radu Timofte, Luc Van Gool. "Degradation-Aware Unfolding Half-Shuffle Transformer for Spectral Compressive Imaging", **NeurIPS** 2022. [Code] [Star: 644]

Technical Reports

I have won the champion of NTIRE Spectral Recovery Challenge at CVPR 2022, and third place of NTIRE video super-resolution challenge at CVPR 2021. I play a hand-on role and **wrote all the codes and performed experiments** in these challenges.

1. Yuanhao Cai*, **Jing Lin***, Zudi Lin, Haoqian Wang, Yulun Zhang, Hanspeter Pfister, Radu Timofte, and Luc Van Gool. "MST++: Multi-stage Spectral-wise Transformer for Efficient Spectral Reconstruction", *IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops* (**CVPRW Oral** & **Winner Award** of NTIRE Challenge on Spectral Reconstruction from RGB), 2022.

   [Code] [Star: 422] [Video] [Slide] [Poster] [Workshop Paper] [Leaderboard]

Github Repository

I'm passionate about open-source. Codes and datasets from my projects are released in GitHub, where I receive over 14K stars. Here are three important repositories:

1. MST: This repo is a comprehensive toolbox for spectral compressive imaging, in which I've reproduced seven previous works and supported eleven reconstruction methods.

2. OSX: This is a repo for whole-body mesh recovery. We provide detailed instructions for data and model preparation, model training, and inference. We hope to help researchers shift from SMPL-based mesh recovery to SMPLX-based whole-body mesh recovery.

3. Grounded-SAM: During my internship at the International Digital Economy Academy (IDEA), I collaborated on the Grounded-SAM project, which aims to detect and segment anything with text inputs and has earned over 12K stars.

Honors and Awards

- **Outstanding Graduates of Tsinghua University** 2024
- **Excellent Master Thesis Award, Tsinghua University** 2024
- **National Scholarship** 2019, 2023
- **Winner** of NTIRE Spectral Reconstruction Challenge at CVPR 2022
- **Outstanding Graduates of Harbin Institute of Technology (Shenzhen)** 2021
- **First Class Scholarship** 2019, 2020, 2022