Zhenggang Tang

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LinkedIn, Google Scholar
Personal Website

RESEARCH INTERESTS

I'm working on **multimodal foundation models**, including **unified understanding and generation, spatial-temporal understanding and spatial reconstruction.**
I'm also generally interested in **reinforcement learning** and **multi-agent systems**.

EDUCATION

Bachelor of Science, School of EECS, Peking University, China. GPA**: 3.80**/4 Rank: **5**/91
09/2017 - 06/2021

Doctor of Philosophy in Computer Science, University of Illinois at Urbana-Champaign, United States.
Advisor by Prof. Alexander Schwing 08/2021 - present

EMPLOYMENT

Meta Platform Inc.
- **Research Scientist Intern @ XR Tech Core AI** 05/2025 – present
  Unified spatial understanding and generation, still in progress.
- **Research Scientist Intern @ XR Tech Core AI** 05/2024 – 01/2025
  *Single stage efficient scene reconstruction from pose-free RGB only views. Work published in CVPR 2025 as an **oral** presentation. Github 500+ stars.*

Snap Inc.
- **Research Scientist Intern @ Creative Vision Group** 01/2024 – 05/2024
  Pixel Aligned multi-view generation for 3D generation. Work published in CVPR 2025 workshop

NVIDIA
- **Research Scientist Intern** 05/2022 – 10/2022
  RGB-Only SDF Reconstruction of Tabletop Scenes for Collision-Free Manipulator Control. Work published in ICRA 2022.

Microsoft Research Asia
- **Research Scientist Intern @ Fintech Group** 10/2020 – 05/2021
  Learning to negotiate intentions in a diffusion-like way in multi-asset order execution modeled as a multi-agent system. Work published in KDD 2023.

PUBLICATIONS

1. **Zhenggang Tang**, Yuchen Fan, Dilin Wang, Hongyu Xu, Rakesh Ranjan, Alex Schwing, Zhicheng Yan, "MV-DUSt3R+: Single-Stage Scene Reconstruction from Sparse Views In 2 Seconds", **CVPR** 2025 (**Oral** presentation), Nashville, USA.
2. **Zhenggang Tang**, Peiye Zhuang, Chaoyang Wang, Aliaksandr Siarohin, Yash Kant, Alex Schwing, Sergey Tulyakov, Hsin-Ying Lee, Pixel-Aligned Multi-View Generation with Depth Guided Decoder, **CVPR** 2025 **workshop**, Nashville, USA.
3. **Zhenggang Tang**, Zhongzheng Ren, Xiaoming Zhao, Bowen Wen, Jonathan Tremblay, Stan Birchfield, Alexander Schwing, "NeRFDeformer: NeRF Transformation from a Single View via 3D Scene Flows", **CVPR** 2024, Seattle, USA.
4. **Zhenggang Tang***, Yuchen Fang*, Kan Ren, Weiqing Liu, Li Zhao, Jiang Bian, Dongsheng Li, Weinan Zhang, Yong Yu, Tie-Yan Liu, "Learning Multi-Agent Intention-Aware Communication for Optimal Multi-Order Execution in Finance", **ACM SIGKDD** Conference on Knowledge Discovery and Data Mining 2023, Long Beach, California, United States. (* contribute equally).
5. **Zhenggang Tang**, Balakumar Sundaralingam, Jonathan Tremblay, Bowen Wen, Ye Yuan, Stephen Tyree, Charles Loop, Alexander Schwing, Stan Birchfield. "RGB-Only Reconstruction of Tabletop Scenes for Collision-Free Manipulator Control", IEEE International Conference on Robotics and Automation (**ICRA**) 2023, London, UK.

6. **Zhenggang Tang***, Chao Yu*, Boyuan Chen, Huazhe Xu, Xiaolong Wang, Fei Fang, Simon Shaolei Du, Yu Wang, Yi Wu, "Discovering Diverse Multi-Agent Strategic Behavior via Reward Randomization", Accepted in International Conference on Learning Representations (**ICLR**), Vienna, Austria (2021) (* contribute equally)

PREPRINTS

1. **Zhenggang Tang***, Yuehao Wang*, Yuchen Fan, Jun-Kun Chen, Yu-Ying Yeh, Kihyuk Sohn, Zhangyang Wang, Qixing Huang, Rakesh Ranjan, Dilin Wang, Zhicheng Yan, **"Autoregressive Diffusion Modeling for Compositional Text-to-3D Generation",** in submission. (* contribute equally)
2. Haozhen Zheng, Beitong Tian, Mingyuan Wu, **Zhenggang Tang**, Klara Nahrstedt, Alex Schwing, "Spatio-Temporal LLM: Reasoning about Environments and Actions", arXiv preprint: 2507.05258.
3. **Zhenggang Tang***, Kai Yan*, Liting Sun, Wei Zhan, Tianhao Wei, Changliu Liu, "A Microscopic Epidemic Model and Pandemic Prediction of Allegheny County using Multi-Agent Reinforcement Learning", arXiv preprint:2108.06589. (* contribute equally).

PATENTS

1. Balakumar Sundaralingam, Stanley Birchfield, **Zhenggang Tang**, Jonathan Tremblay, Stephen Tyree, Bowen Wen, Ye Yuan, Charles Loop, "Techniques for controlling robots within environments modeled based on images.", U.S. Patent Application No. 18/168,482.

REVIEWER EXPERIENCE

IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**)	2024 – present
European Conference on Computer Vision (**ECCV**)	2024 – present
Neural Information Processing Systems (**NeurIPS**)	2024 – present
International Conference on Learning Representations (**ICLR**)	2024 – present
ACM SIGGRAPH Asia	2025 – present
International Conference on 3D Vision (**3DV**)	2024 – present

AWARDS AND HONORS

- Award of Stars of Tomorrow Internship Program in Microsoft Research Asia. 06/2021
- Top 10% thesis reward when graduating from Peking University. 06/2021
- Award of Turing Class in Peking University (Top10 in AI direction) 10/2019
- Silver Medal in 33rd National Olympiad in Informatics 07/2016
- Gold Medal in 10th Asia-Pacific Informatics Olympiad (China District). 05/2016