

JIAPENG TANG

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EDUCATION

Technical University of Munich

Ph.D. of Informatics

Nov. 2021 - Present

Supervisor: Prof. Matthias Nießner

South China University of Technology

Master of Signal and Information Processing

Sep. 2018 - Jun. 2021

South China University of Technology

Bachelor of Engineering, Information Engineering (Elite Class)

Sep. 2014 - Jun. 2018

GPA: 3.84/4.0

RESEARCH INTERESTS

Neural field, Diffusion models, 3D object/scene generation and reconstruction

Shape deformation, Non-rigid tracking and reconstruction.

Novel view synthesis, Neural radiance field.

EXPERIENCE

The Chinese University of Hong Kong, Shenzhen

Summer Research Intern, Supervised by **Prof. Xiaoguang Han**

Jul. 2018 - Sep. 2018

DAMO Academy, Alibaba Group

Research Intern, Supervised by **Prof. Lei Zhang**

May 2020 - Oct. 2021

PUBLICATIONS

* Joint first author # Corresponding author

- **J. Tang**, A. Dai, Y. Nie, L. Markhasin, J. Thies, M. Nießner. DPHMs: Diffusion Parametric Head Models for Depth-based Tracking. **arXiv 2023, in submission.**
- W. Cao*, C. Luo*, B. Zhang, M. Nießner, **J. Tang#**. Motion2VecSets: 4D Latent Vector Set Diffusion for Non-rigid Shape Reconstruction and Tracking. **arXiv 2023, in submission, supervising master thesis project.**
- **J. Tang**, Y. Nie, L. Markhasin, A. Dai, J. Thies, M. Nießner. DiffuScene: Denoising Diffusion Probabilistic Model for Generative Indoor Scene Synthesis. **arXiv 2023, in submission.**
- B. Zhang, **J. Tang**, M. Nießner, P. Wonka. 3DShape2VecSet: A 3D Shape Representation for Neural Fields and Generative Diffusion Models. (**SIGGRAPH 2023, Journal Track**).
- J. Lei, **J. Tang**, Kui Jia. RGBD²: Generative Scene Synthesis via Incremental View Inpainting using RGBD Diffusion Models The IEEE Conference on Computer Vision and Pattern Recognition (**CVPR 2023**).
- **J. Tang**, L. Markhasin, B. Wang, J. Thies, M. Nießner. Neural Shape Deformation Priors, Neural Information Processing Systems (**NeurIPS 2022**), **Spotlight presentation.**

- X. Yu, **J. Tang**, Y. Qin, C. Li, L. Bao, X. Han, and S. Cui. PVSeRF: Joint Pixel-, Voxel-and Surface-Aligned Radiance Field for Single-Image Novel View Synthesis, ACM International Conference on Multimedia (MM), 2022.
- **J. Tang**, J. Lei, D. Xu, F. Ma, K. Jia, and L. Zhang. SA-ConvONet: Sign-Agnostic Optimization of Convolutional Occupancy Networks, International Conference on Computer Vision (ICCV), 2021, **Oral presentation, 3.4%**.
- **J. Tang***, X. Han*, M. Tan, X. Tong and K. Jia. SkeletonNet: A Topology-Preserving Solution for Learning Mesh Reconstruction of Object Surfaces from RGB Images, IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2021.
- **J. Tang**, D. Xu, K. Jia, and L. Zhang. Learning Parallel Dense Correspondence from Spatio-Temporal Descriptors for Efficient and Robust 4D Reconstruction. The IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2021.
- J. Pan, X. Han, W. Chen, **J. Tang** and K. Jia. Deep Mesh Reconstruction from Single RGB Images via Topology Modification Networks, International Conference on Computer Vision (ICCV), 2019.
- **J. Tang***, X. Han*, J. Pan K. Jia and X. Tong. A Skeleton-bridged Deep Learning Approach for Generating Meshes of Complex Topologies from Single RGB Images. The IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2019, **Oral presentation, Best paper final lists, 0.8%**.

PROFESSIONAL SERVICES

Conference Reviewer: CVPR 2021, ICCV 2021, CVPR 2022, CVPR 2023, ICCV 2023, NeurIPS 2023, CVPR 2024.

Journal Reviewer: Transactions on Image Processing (TIP), Transactions on Visualization and Computer Graphics (TVCG), Transactions on Pattern Analysis and Machine Intelligence (TPAMI)

AWARDS

South China University of Technology Scholarship	2015-2020
Merit Student of South China University of Technology	2015-2017

SKILLS AND INTERESTS

Language: Native in Chinese (Mandarin), Fluent in English.

Programming Language: Python, C/C++, Cuda, Matlab, L^AT_EX

Deep Learning Platform: PyTorch, TensorFlow

Sports: Basketball, Table tennis, Running, Swimming, and Hiking.

OTHERS

For more information, please visit my website at: <https://tangjiapeng.github.io>.