

Dr. Yushi Lan | Curriculum Vitae

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PROFESSIONAL EXPERIENCE

- Postdoctoral Research Fellow, Visual Geometry Group (VGG), University of Oxford, UK** 05/2025–Present
Advisor: Prof. Andrea Vedaldi
- Postdoctoral Research Fellow, MMLab@NTU, Nanyang Technological University (NTU), Singapore** 02/2025–05/2025
Advisor: Asst. Prof. Xingang Pan

EDUCATION

- School of Computer Science and Engineering, Nanyang Technological University (NTU)** 08/2020–02/2025
Ph.D. in Computer Science, Multi-Media Lab (MMLab) at NTU
Main Advisor: Prof. Chen Change Loy
Thesis: Expanding the Generality of Neural Fields
- Beijing University of Posts and Telecommunications (BUPT)** 08/2016–07/2020
B.E. in Software Engineering, Overall GPA: 3.85/4.0, Major GPA: 3.9/4.0
Affiliated with Ye-PeiDa Honors College (Top 1% of 3600 undergraduates)

RESEARCH INTERESTS

Spatial AI, Embodied AI, Physical AI, 3D Generative Model, 3D Avatar, Shape Analysis, Inverse Graphics / Neural rendering.

PUBLICATIONS

- Yushi Lan**, Fangzhou Hong, Shuai Yang, Shangchen Zhou, Xuyi Meng, Bo Dai, Xingang Pan, Chen Change Loy, “GaussianAnything: Interactive Point Cloud Latent Diffusion for 3D Generation”, *International Conference on Learning Representations (ICLR)* 2025.
- Honghua Chen, **Yushi Lan**, Yongwei Chen, Xingang Pan, “ArtiLatent: Realistic Articulated 3D Object Generation via Structured Latents”, *SIGGRAPH Asia* 2025
- Zeqi Xiao, **Yushi Lan**, Yifan Zhou, Wenqi Ouyang, Shuai Yang, Yanhong Zeng, Xingang Pan, “WorldMem: Long-term Consistent World Simulation with Memory”, *Neural Information Processing Systems (NeurIPS)* 2025
- Songlin Yang, **Yushi Lan**, Honghua Chen, Xingang Pan, “Textured 3D Regenerative Morphing with 3D Diffusion Prior”, *The International Conference on Computer Vision (ICCV)* 2025
- Yushi Lan**, Xuyi Meng, Shuai Yang, Chen Change Loy, Bo Dai, “E3DGE: Self-Supervised Geometry-Aware Encoder for Style-Based 3D GAN Inversion”, *International Journal of Computer Vision (IJCV)* 2025
- Yongwei Chen, **Yushi Lan**, Shangchen Zhou, Tengfei Wang, Xingang Pan, “SAR3D: Autoregressive 3D Object Generation and Understanding via Multi-scale 3D VQVAE”, *The IEEE / CVF Computer Vision and Pattern Recognition Conference (CVPR)* 2025
- Yihang Luo, Shangchen Zhou, **Yushi Lan**, Xingang Pan, Chen Change Loy, “3DEnhancer: Consistent Multi-View Diffusion for 3D Enhancement”, *The IEEE / CVF Computer Vision and Pattern Recognition Conference (CVPR)* 2025
- Zhaoxi Chen, Jiaxiang Tang, Yuhao Dong, Ziang Cao, Fangzhou Hong, **Yushi Lan**, Tengfei Wang, Haozhe Xie, Tong Wu, Shunsuke Saito, Liang Pan, Dahua Lin, Ziwei Liu, “3DTopia-XL: Scaling High-quality 3D Asset Generation via Primitive Diffusion”, *The IEEE / CVF Computer Vision and Pattern Recognition Conference (CVPR)* 2025
- Yushi Lan**, Fangzhou Hong, Shuai Yang, Shangchen Zhou, Xuyi Meng, Bo Dai, Xingang Pan, Chen Change Loy, “LN3Diff: Scalable Latent Neural Fields Diffusion for Speedy 3D Generation”, *European Conference on Computer Vision (ECCV)* 2024.
- Yushi Lan**, Feitong Tan, Di Qiu, Qiangeng Xu, Kyle Genova, Zeng Huang, Sean Fanello, Rohit Pandey, Thomas Funkhouser, Chen Change Loy, Yinda Zhang, “Loc3Diff: Local Diffusion for 3D Human Head Synthesis and Editing”, *European Conference on Computer Vision (ECCV)* 2024.
- Songlin Yang, Wei Wang, **Yushi Lan**, Xiangyu Fan, Bo Peng, Lei Yang, Jing Dong, “Learning Dense Correspondence for NeRF-Based Face Reenactment” (*AAAI*) 2024
- Junzhe Zhang*, **Yushi Lan***, Shuai Yang, Fangzhou, Hong, Quan Wang, Chai Kiat Yeo, Ziwei Liu, Chen Change Loy, “DeformToon3D: Deformable 3D Toonification from Neural Radiance Fields”, *The International Conference on Computer Vision*

(ICCV) 2023

Yushi Lan, Xuyi Meng, Shuai Yang, Chen Change Loy, Bo Dai, “Self-Supervised Geometry-Aware Encoder for Style-Based 3D GAN Inversion”, *The IEEE / CVF Computer Vision and Pattern Recognition Conference (CVPR)* 2023

Fangzhou Hong, Zhaoxi Chen, **Yushi Lan**, Liang Pan, Ziwei Liu, “EVA3D: Compositional 3D Human Generation From 2D Image Collections”, *The International Conference on Learning Representations (ICLR) Spotlight* 2023

Yushi Lan, Chen Change Loy, Bo Dai, “Correspondence Distillation from NeRF-based GAN”, *International Journal of Computer Vision (IJCV)* 2022

Yushi Lan, Yuan Liu, Xinchu Zhou, Maoqing Tian and Hongsheng Li, “MagnifierNet: Towards Semantic Adversary and Fusion for Person Re-identification”, *The British Machine Vision Conference (BMVC)* 2020

PREPRINTS

Zhouxia Wang, **Yushi Lan**, Shangchen Zhou, Chen Change Loy, “ObjCtrl-2.5D: Training-free Object Control with Camera Poses”, *arXiv* 2024

Honghua Chen, **Yushi Lan**, Yongwei Chen, Yifan Zhou, Xingang Pan, “MVDrag3D: Drag-based Creative 3D Editing via Multi-view Generation-Reconstruction Prior”, *arXiv* 2024

Yushi Lan, Feitong Tan, Di Qiu, Qiangeng Xu, Kyle Genova, Zeng Huang, Sean Fanello, Rohit Pandey, Thomas Funkhouser, Chen Change Loy, Yinda Zhang, “Gaussian3Diff: 3D Gaussian Diffusion for 3D Full Head Synthesis and Editing”, *arXiv* 2023

RESEARCH EXPERIENCES

MMLab@NTU | Postdoc Research Fellow **Singapore**
Advisor: Asst/Prof. Xingang Pan 04/2025–05/2025

➤ Research on large-scale 3D & 4D foundation models.

MMLab@NTU | Research Associate **Singapore**
Advisor: Prof. Chen Change Loy 02/2025–04/2025

➤ Research on large-scale 3D perception and generative model.

Student Researcher, Google LLC **Kitchener–Waterloo, CA**
Mentor: Dr. Yinda Zhang. Teams: Dr. Feitong Tan and Dr. Kyle Genova and Prof. Thomas A. Funkhouser. 07/2023–12/2023

➤ Research on conditional, fine-grained and animatable diffusion model of 3D avatar via 3D neural gaussians.

MMLab@NTU | Ph.D. **Singapore**
Advisor: Prof. Chen Change Loy 08/2020–02/2025

➤ Research on improving the generalization of neural scene representations.

Research Intern, MSRA (System Research Group) **Beijing**
Advisor: Hui Xue 11/2019–05/2020

➤ Researching on Efficient Optimization of Graph Convolution Network on Large Graphs.

Research Assistant, Computational Visualization Center **UT Austin**
Advisor: Prof. Chandrajit Bajaj 07/2019–11/2019

➤ Research on Hierarchical ResUnet for Semantic Segmentation on microscopy cell and tissues.

Research Intern, SenseTime Research **Beijing**
Advisor: Dr. Shuai Yi, Prof. Hongsheng Li 03/2019–11/2019

➤ Research on the representation alignment in the task of cross-camera person retrieval (ReID) using semantic regularizations.

Bachelor Thesis, Data Intelligence Group (DIG) **BUPT**
Advisor: Asst Prof. Yinxia Shao 10/2019–05/2020

➤ Research on Community Detection with Dynamic Graph Convolution Networks.

Exchange Student, Wolfson College **University of Cambridge**
BUPT - Cambridge University exchange program (Top 0.5% of 3600 undergraduates) 08/2018

AWARDS

Meshy Outstanding Fellowship (5,000 USD, 8 recipients worldwide) 2025

Academic Outstanding Scholarship, Top 5% of BUPT for 3 consecutive years 2016–2019

National Award, BUPT Undergraduate Research Innovative Projects (top 2%) 2019

Finalist, China College Student's Innovation Competition (top 5%)

2018

Scholarship, Ansheng.Wang Foundation Elite Award (top 5%)

2017

OTHER SERVICES

➤ Technical paper reviewer

- Computer Vision and Pattern Recognition (CVPR)
- European Conference on Computer Vision (ECCV)
- International Conference on Computer Vision (ICCV)
- International Conference on Learning Representations (ICLR)
- Conference on Neural Information Processing Systems (Neurips)
- International Conference on Machine Learning (ICML)
- ACM SIGGRAPH
- International Conference on Artificial Intelligence and Statistics (AISTATS)
- AAAI Conference on Artificial Intelligence (AAAI)
- International Journal of Computer Vision (IJCV)

➤ Teaching Assistant

- CZ3001: Advanced Computer Architecture, NTU Fall 2021 – 2022
- CE7491: Digital Image Processing, NTU Fall 2021 – 2022
- CE7454: Deep Learning, NTU Spring 2021