FUQIANG ZHAO

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ABOUT ME

I obtained my **PhD** in Computer Science from **ShanghaiTech University**, where I worked under the supervision of Professor Jingyi Yu (IEEE Fellow). My research focused on 3D Computer Vision, particularly in the areas of 3D Reconstruction & Rendering, Camera-Conditioned Video Generation, and 3D Generative AI. My publications in this field have received over 1.8k+ citations on Google Scholar.

Currently, I am the CEO of NeuDim, a company dedicated to generative 3D content creation and full-color 3D printing platforms. I am passionate about bridging cutting-edge research and real-world applications, transforming innovations in 3D vision and AI into impactful products and user experiences.

EDUCATION

ShanghaiTech University   *2020 - Present*
Ph.D. candidate, Major in Computer Science

China University of Petroleum   *2016-2020*
B.Sc, Major in Software Engineering, RANK: 2/125

PROJECTS

Generative Full-Color 3D Printing Platform   May 2025 – Present

· Served as **Project Manager**, leading the development of a platform integrating 3D/video foundation models and 3D reconstruction techniques (NeRF & 3DGS).
· Designed a user-friendly workflow that enables users to generate personalized full-color 3D-printed artworks from a single photo.

3D Generative Content Creation Platform   Jan 2023 – Apr 2024

· Built a low-barrier 3D content creation platform leveraging 3D Gaussian Splatting (3DGS) and Neural Radiance Fields (NeRF), enabling efficient 3D generation from multi-view images or videos.

Multi-view Camera Capture System   Sept 2020 – Dec 2024

· Designed and implemented a multi-camera capture system for dynamic multi-view video acquisition.
· Conducted research on multi-view 3D reconstruction algorithms, with multiple works published at top conferences including **SIGGRAPH** and **CVPR**.

PUBLICATIONS

About 10 papers, over 4 as first/co-first author(*) in total, 1.8k+ citations on Google Scholar.

- AerialGo: Walking-through City View Generation from Aerial Perspectives
  Fuqiang Zhao*, Yijing Guo*, Siyuan Yang*, Xi Chen, Luo Wang, Lan Xu, Yingliang Zhang, Yujiao Shi, Jingyi Yu
  (Arxiv, 2024) [Paper]
  We propose AerialGo, a novel framework that generates realistic walking-through city views from aerial images, leveraging multi-view diffusion models to achieve scalable, photorealistic urban reconstructions without direct ground-level data collection.

- LetsGo: Large-Scale Garage Modeling and Rendering via LiDAR-Assisted Gaussian Primitives
  Jiadi Cui*, Junming Cao*, **Fuqiang Zhao***, Zhipeng He, Yifan Chen, Yuhui Zhong, Lan Xu, Yujiao Shi, Yingliang Zhang, Jingyi Yu
  (SIGGRAPH Asia 2024) [Project — Paper]
  We introduce LetsGo, a LiDAR-assisted Gaussian splatting framework for large-scale garage modeling and rendering. We propose a multi-resolution 3D Gaussian representation designed for Level-of-Detail (LOD) rendering.

- NEPHELE: A Neural Platform for Highly Realistic Cloud Radiance Rendering
  Haimin Luo, Siyuan Zhang, **Fuqiang Zhao**, Haotian Jing, Penghao Wang, Zhenxiao Yu, Dongxue Yan, Junran Ding, Boyuan Zhang, Qiang Hu, Shu Yin, Lan Xu, Jingyi Yu
  Submitted to SIGGRAPH 2023 [Paper]

- Human Performance Modeling and Rendering via Neural Animated Mesh
  Fuqiang Zhao, Yuheng Jiang, Kaixin Yao, Jiakai Zhang, Liao Wang, Haizhao Dai, Yuhui Zhong, Yingliang Zhang, Minye Wu, Lan Xu, Jingyi Yu
  (SIGGRAPH Asia 2022) [Project — Paper]
  We present a comprehensive neural approach for high-quality reconstruction, compression, and rendering of human performances from dense multi-view videos.

- NeuVV: Neural Volumetric Videos with Immersive Rendering and Editing
  Jiakai Zhang, Liao Wang, Xinhang Liu, **Fuqiang Zhao**, Minzhang Li, Haizhao Dai, Boyuan Zhang, Wei Yang, Lan Xu, Jingyi Yu
  Submitted to SIGGRAPH 2022 [Paper]

- Fourier PlenOctrees for Dynamic Radiance Field Rendering in Real-time
  Liao Wang*, Jiakai Zhang*, Xinhang Liu, **Fuqiang Zhao**, Yanshun Zhang, Yingliang Zhang, Minye Wu, Lan Xu, Jingyi Yu
  (CVPR 2022 Oral) [Project — Paper]

- HumanNeRF: Efficiently Generated Human Radiance Field from Sparse Inputs
  Fuqiang Zhao, Wei Yang, Jiakai Zhang, Pei Lin, Yingliang Zhang, Jingyi Yu, Lan Xu
  (CVPR 2022) [Project — Paper]
  We present HumanNeRF - a neural representation with efficient generalization ability - for high-fidelity free-view synthesis of dynamic humans.

- MVSNeRF: Fast Generalizable Radiance Field Reconstruction from Multi-View Stereo
  Anpei Chen, Zexiang Xu, **Fuqiang Zhao**, Xiaoshuai Zhang, Fanbo Xiang, Jingyi Yu, Hao Su
  (ICCV 2021) [Project — Paper]

- Editable Free-viewpoint Video Using a Layered Neural Representation
  Jiakai Zhang, Xinhang Liu, Xinyi Ye, **Fuqiang Zhao**, Yanshun Zhang, Minye Wu, Yingliang Zhang, Lan Xu, Jingyi Yu
  (SIGGRAPH 2021) [Project — Paper]

- MirrorNeRF: One-shot Neural Portrait Radiance Field from Multi-mirror Catadioptric Imaging
  Ziyu Wang, Liao Wang, **Fuqiang Zhao**, Minye Wu, Lan Xu, Jingyi Yu
  (ICCP 2021) [Paper]

EXPERIENCE

NeuDim Digital Technology Inc.   July 2022 – Present

- **CEO** & **Founder**. NeuDim aims to substitute classical photogrammetry-based 3D/4D reconstruction with emerging neural approaches. It was incubated from the Visual Data Intelligence (VDI) Center at ShanghaiTech, by a group of fearless PhD students with various expertise on neural modeling, rendering, and tracking.

DGene Digital Technology Inc. Jan 2022 – Sep 2022

· **R** & **D Intern**. Worked as a part-time research and development intern at DGene Digital Technology Inc.

TECHNICAL SKILLS

Programming Languages	Python (Pytorch, ...), C++, CUDA
Softwares & Tools	Visual Studio, Pycharm, Jupyter Notebook
	Meshlab, Blender
	Adobe Photoshop, Premiere
Languages	English, CET6, 518
Others	Latex, Markdown

REFERENCES

Prof. Jingyi Yu Supervisor, IEEE Fellow ShanghaiTech University yujingyi@@shanghaitech.edu.cn