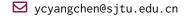
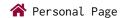
Chen Yang



🕠 chensjtu





Education

Sep 2021 – Present Ph.D. in Computer Science, Shanghai Jiao Tong University

Ph.D. Advisor: Wei Shen

Sep 2019 – Jun 2021 M.A. in Precision Instrument, Shanghai Jiao Tong University GPA: 3.76/4.0

Sep 2015 – Jun 2019 **B.A. in Precision Instrument, Shanghai Jiao Tong University** GPA: 3.91/4.3

Selected Research Projects

2023 – 2024 GaussianObject: Just Taking Four Images to Get A High-Quality 3D Object

- Aiming to reconstruct finely detailed objects from very sparse inputs (as few as 4 images). Leveraging 3DGS as scene representation and refining a pre-trained diffusion model for strong priors.
- Project lead by Wei Shen and Jiemin Fang.
- Accepted by ACM Transactions on Graphics (TOG), SIGGRAPH Asia 2024.

2023 Segment Anything in 3D with NeRFs

- Leveraged SAM (Segment Anything) to segment NeRFs, providing a simplified pipeline for efficient 3D segmentation. The project shows a generic methodology to lift 2D foundation models to the 3D space.
- Project lead by Wei Shen
- Accepted by NeurIPS 2023.

2022 – 2023 Efficient Deformable Tissue Reconstruction via Orthogonal Neural Plane

- Accelerated the optimization and inference on reconstructing deformable tissues with NeRFs, improving efficiency and quality across non-rigid deformations.
- Project lead by Wei Shen.
- Accepted by MICCAI 2023, Young Scientist Award and IEEE Transactions on Medical Imaging (TMI).

2021 – 2022 NeRFVS: Neural Radiance Fields for Free View Synthesis via Geometry Scaffolds

- Designed a novel approach enabling neural radiance fields to perform free view synthesis at room scale and perform superior extrapolation in room scale.
- Project lead by Weichao Qiu and Wei Shen.
- Accepted by CVPR 2023.

Skills

Programming Languages

Python, C, C++, Matlab

Software & Tools

PyTorch, OpenCV, OpenGL, Lax, COMSOL

Teaching Experience

Spring 2019

■ Teaching Assistant, MI 321: Course Design of Instrument Bus and Virtual Environment, Shanghai Jiao Tong University

Fall 2020

■ Teaching Assistant, MI 318: Measuring and Controlling Circuit, Shanghai Jiao Tong University

Spring 2021

Teaching Assistant, EE 334: Industrial Measurement and Control Technology and System, Shanghai Jiao Tong University

Internship Experience

2023 - 2024

3D Vision Intern, Huawei Cloud mentored by Jiemin Fang and Qi Tian.

2021 - 2022

Machine Vision Intern, Huawei Noah's Ark Lab mentored by Weichao Qiu.

Awards and Achievements

2023

MICCAI Young Scientist Award, Awarded top 5 among 2250 submissions.

■ Intel Scholarship, Awarded top 5 among over 100 competitors.

2022

Second Prize of National Post-Graduate Mathematical Contest in Modeling, Awarded to top 14.5% of contestants.

2021

National Scholarship, Awarded to top 3% of students at Shanghai Jiao Tong University.

First Prize of Huawei Chinese University ICT Competition, Awarded top 1 among

2019 – 2021

First-class Academic Scholarship, Awarded to top 30% of students at Shanghai Jiao Tong University.

Publications

- Yang, C., Li, S., Fang, J., Liang, R., Xie, L., Zhang, X., ... & Tian, Q. GaussianObject: Just Taking Four Images to Get A High-Quality 3D Object with Gaussian Splatting. ACM Transactions on Graphics (TOG), 2024.
- Wang, K., Yang, C., Wang, Y., Li, S., Wang, Y., Dou, Q., Yang, X., & Shen, W. EndoGSLAM: Real-Time Dense Reconstruction and Tracking in Endoscopic Surgeries using Gaussian Splatting. MICCAI, 2024.
- Cen, J., Fang, J., Yang, C., Xie, L., Zhang, X., Shen, W., & Tian, Q. Segment any 3d gaussians. arXiv preprint arXiv:2312.00860, 2023.
- Yang, C., Wang, K., Wang, Y., Dou, Q., Yang, X., & Shen, W. Efficient deformable tissue reconstruction via orthogonal neural plane. IEEE Transactions on Medical Imaging (TMI), 2024.
- Cen, J., Zhou, Z., Fang, J., **Yang, C.**, Shen, W., Xie, L., Jiang, D., Zhang, X., & Tian, Q. (2023). Segment Anything in 3D with Radiance Fields. NeurIPS, 2023.
- Li, P., Wang, S., Yang, C., Liu, B., Qiu, W., & Wang, H. NeRF-MS: Neural Radiance Fields with Multi-Sequence. ICCV, 2023.
- Yang, C., Wang, K., Wang, Y., Yang, X., & Shen, W. Neural LerPlane Representations for Fast 4D Reconstruction of Deformable Tissues. MICCAI, 2023.

Publications (continued)

- Yang, C., Li, P., Zhou, Z., Yuan, S., Liu, B., Yang, X., ... & Shen, W. NeRFVS: Neural Radiance Fields for Free View Synthesis via Geometry Scaffolds. CVPR, 2023.
- 9 Liang, R., Zhang, J., Li, H., **Yang, C.**, & Vijaykumar, N. SPIDR: SDF-based Neural Point Fields for Illumination and Deformation. CVPR workshop, 2023.
- Yang, C., Yao, S. Y., Zhou, Z. W., Ji, B., Zhai, G. T., & Shen, W. *Poxture: Human Posture Imitation Using Neural Texture.* IEEE Transactions on Circuits and Systems for Video Technology (TCSVT), 2022.
- Zhou, Z., Wang, Z., Yao, S., Yan, Y., **Yang, C.**, Zhai, G., ... & Yang, X. *DialogueNeRF: Towards Realistic Avatar Face-to-face Conversation Video Generation.* arXiv preprint arXiv:2203.07931, 2022.
- Ji, B., Yang, C., Shunyu, Y., & Pan, Y. HPOF: 3d human pose recovery from monocular video with optical flow. ICMR, 2021.