

Chen Yang

Principal Engineer | Technical Owner, Xiaoyi 3D Foundation Model

Own model R&D for the Xiaoyi 3D foundation model, from technical direction and roadmap to hands-on core implementation. My research spans 3D foundation-model pretraining and post-training, image-aligned PBR texturing, and agent-driven, structured scene generation, delivered as papers, open-source releases, and production deployments.

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👤 [chensjtu.github.io](https://github.com/chensjtu)

🔗 github.com/chensjtu

★ [Google Scholar](#)



20+

PAPERS & PREPRINTS · RESEARCH RECORD

~2,000

GOOGLE SCHOLAR CITATIONS

Young Scientist Award

MICCAI 2023 · TOP 5 / 2,250

3,000+ GitHub Stars

TOTAL ACROSS PROJECTS · GAUSSIANOBJECT 1.2K

01 Professional Experience EXPERIENCE

 **HUAWEI** · Principal Engineer | Technical Owner, Xiaoyi 3D Foundation Model 2025 - Present

- **Xiaoyi 3D Foundation Model:** Own training, inference deployment, and product integration. The model powers our team product **Xiaoyi 3D x Pixel Artisan PRO**, which debuted at HDC 2026, surpassed **40,000 users within 50 hours**, and received the HarmonyOS Innovative Premium App Award.
- **SUPRA-Text:** First author of our latest work: single-image 3D assets with relightable, **super-aligned PBR textures**, trained only on open-source data yet **competitive with commercial systems**; the **2.1B-parameter** model, code, and demo were open-sourced in Oct 2026.

 **Huawei Cloud** · 3D Vision Intern 2023 - 2024

- Developed **GaussianObject** as first author, using geometric initialization, floater removal, and diffusion repair to stabilize extremely sparse-view 3DGS and reconstruct high-quality objects from **four images without COLMAP**; ACM TOG (SIGGRAPH Asia 2024). Training and inference code are **fully open-sourced**, with **1.2K GitHub stars**.

 **Huawei Noah's Ark Lab** · Machine Vision Intern 2021 - 2022

- Proposed **NeRFVS** as first author, combining geometry scaffolds with pseudo-depth and view-coverage priors to reduce floaters and geometry/color ambiguity, enabling **free roaming in reconstructed indoor scenes**; CVPR 2023.

02 Selected 3D Generative Research SELECTED RESEARCH

SUPRA-Text | 3D Generation with Super-Aligned Texture First Author · arXiv 2026

Designed and built **SUPRA-Text** end to end: a LoRA-adapted Qwen-Image predicts reference-view PBR maps, encoded as **surface-aligned observations** in a sparse 3D latent; an **Interleaved Flow Transformer** then completes unseen regions. In a 512-pair human study, preferred for visual quality and input alignment over **Hunyuan3D 3.1, Rodin 2.5, Tripo H3.1, Meshy 7.1, and Hi3D 3.0**.

supra-3d.github.io/supratext github.com/Supra-3D/SUPRA-Text

UniLat3D | Unified Geometry-Appearance 3D Latents Co-first Author · Findings of CVPR 2026

Led the **mesh decoder** of UniLat3D, where a **Unified VAE** compresses geometry-appearance features and one **Flow Matching** model generates a shared 3D latent, decoded into Gaussians or meshes to produce textured assets in seconds. Trained only on public data; models, code, and demo are **fully open-sourced**.

unilat3d.github.io github.com/UniLat3D/UniLat3D

WorldGrow | Continually Expandable Structured 3D Worlds Co-first Author & Mentor · AAAI 2026 Oral

Mentored the first author and drove the project end to end. **WorldGrow** represents 3D worlds as scene blocks and combines context-aware inpainting with coarse-to-fine synthesis for continual expansion with consistent geometry and appearance. Drew **1M+ views on X**; model weights, code, and interactive demo are **fully open-sourced**.

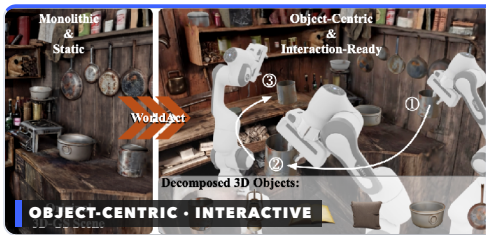
world-grow.github.io github.com/world-grow/WorldGrow

SCULPT | Subtractive Generation for Editable Parts Co-first Author & Mentor · ICLR 2027 (Under Review)

Mentored the first author and drove the project end to end. In **SCULPT**, a joint split predictor co-generates a part and residual object via coupled denoising, enabling adaptive part counts, aligned interfaces, and **recursive subdivision to arbitrary depth**. Part-level Chamfer drops **7.0%** versus the strongest PartObjaverse baseline; supports textured-part editing, material assignment, and reuse.

sculpt-part.github.io github.com/sculpt-part/SCULPT

03 Recent Research Mentorship MENTORSHIP



WorldAct | Interaction-Ready Object-Centric 3D Worlds

Project initiator, co-author, and research mentor. Identified and framed the task of building high-fidelity interactive environments for embodied AI, then guided the conversion of monolithic 3D Gaussian Splatting worlds into **object-centric, editable, interaction-ready simulation environments**. Accepted to **NeurIPS 2026**.
sjtu-deeppvisionlab.github.io arxiv.org/abs/2605.15843

04 Selected Papers & Preprints PUBLICATIONS

01	SUPRA-Text: 3D Generation with Super-Aligned Texture C. Yang*, J. Fang*, F. Meng*, et al. · arxiv.org/abs/2610.22352	arXiv 2026
02	SCULPT: Subtractive Composition for 3D Part Generation S. Li*, C. Yang*, J. Fang, et al. · arxiv.org/abs/2608.13541	ICLR 2027 (Under Review)
03	UniLat3D: Geometry-Appearance Unified Latents for Single-Stage 3D Generation G. Wu*, J. Fang*, C. Yang*, et al. · arxiv.org/abs/2509.25079	Findings of CVPR 2026
04	WorldGrow: Generating Infinite 3D World S. Li*, C. Yang*, J. Fang, et al. · world-grow.github.io	AAAI 2026 Oral
05	WorldAct: Activating Monolithic 3D Worlds into Interactive-Ready Object-Centric Scenes J. Hu*, J. Guo*, J. Cen*, C. Yang, S. Li, W. Shen · arxiv.org/abs/2605.15843	NeurIPS 2026
06	GaussianObject: High-Quality 3D Object Reconstruction from Four Views C. Yang*, S. Li*, J. Fang, et al. · doi.org/10.1145/3687759	ACM TOG 2024
07	NeRFVS: Neural Radiance Fields for Free View Synthesis via Geometry Scaffolds C. Yang, P. Li, Z. Zhou, et al. · openaccess.thecvf.com	CVPR 2023
08	Neural LerPlane Representations for Fast 4D Reconstruction C. Yang, K. Wang, Y. Wang, et al. · doi.org/10.1007/978-3-031-43996-4_5	MICCAI 2023 Best Student Paper

* Equal contribution. Complete record: scholar.google.com/citations?user=StdXTR8AAAAJ. Submission status as of Oct 2026.

05 Education EDUCATION

Ph.D. · Computer Science	Shanghai Jiao Tong University · Advisor: Prof. Wei Shen	Sep 2021 - Jun 2025
M.S. · Precision Instrumentation	Shanghai Jiao Tong University · GPA 3.76/4.0 · Top 10%	Sep 2019 - Jun 2021
B.S. · Precision Instrumentation	Shanghai Jiao Tong University · GPA 3.91/4.3 · Top 30%	Sep 2015 - Jun 2019

06 Capabilities TECHNICAL FOCUS

Methods	Unified VAEs, flow matching, diffusion / DiT, multimodal 3D, structured latents, Gaussian Splatting, and NeRFs.
Code	Python, C/C++, CUDA / Triton; PyTorch, FSDP / DeepSpeed, OpenCV, OpenGL, and Blender.
Open research	Fully open-sourced models, code, and online demos; detailed technical reports and end-to-end reproducible experiments.
Research eng.	Public-data pretraining and post-training, data cleaning, evaluation pipelines, model delivery, and product deployment.

Academic service: Reviewer for CVPR, ICCV, ECCV, NeurIPS, ICLR, ICML, AAAI, MICCAI, SIGGRAPH / SIGGRAPH Asia, and journals including ACM TOG, IEEE TPAMI, TMI, and TVCG.

07 Recognition OUTREACH

Book	Hands-on Computer Vision 《动手学计算机视觉》 · 15,000 copies printed
Honor	MICCAI Young Scientist Award Top 5 / 2,250 · 2023
Scholarships	Intel Scholarship Top 5 / 100+ · 2023 National Scholarship SJTU Top 3% · 2021
Competition	Huawei ICT Competition, First Prize China · 1st / 88 teams · 2021