Xiang (Ryan) Li

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Research Interests

Analysis and alignment of visual generative AI, with an emphasis on 3D generation. Topics include post-training of generative world models, single-image 3D reconstruction, 3D editing, and understanding the 3D capabilities of foundation models.

Education

University of Illinois Urbana–Champaign (UIUC) Champaign, IL
Ph.D. in Computer Science *2021 – Present (Expected 2026)*
Advisor: Prof. James M. Rehg
Proposed Thesis: Towards Human-Aligned Single-Image 3D Generation

Hong Kong University of Science and Technology (HKUST) Hong Kong
B.Eng. in Computer Science *2016 – 2020*
GPA: 3.99 / 4.3 (top 1%), First Class Honors

Industry Experience

Meta Superintelligence Lab Menlo Park, CA
Research Intern *2025*
Worked on SAM 3D, a generative model for 3D object reconstruction from single images.
Main contributor to post-training and preference optimization (DPO/RL for diffusion/flow models).
Hosts: Weiyao Wang, Sasha Sax, Hao Tang, Matt Feiszli

Google Research Seattle, WA
Research Intern *2023*
Investigated curriculum learning for visual continual pretraining. Designed a score function to predict model performance after continual pretraining without training to convergence.
Mentor: Boqing Gong

Selected Publications

** denotes equal contribution*

[1] **SAM 3D: 3Dfy Anything in Images**
SAM 3D Team (Including Xiang Li)
CVPR 2026
[Paper] [Project Page] [Code]

[2] **How Much 3D Do Video Foundation Models Encode?**
Zixuan Huang*, Xiang Li*, Zhaoyang Lv, James M. Rehg
CVPR 2026
[Paper] [Project Page]

[3] **Vinedresser3D: Agentic Text-guided 3D Editing**
Yankuan Chi*, Xiang Li*, Zixuan Huang, James M. Rehg
CVPR 2026
[Paper] [Project Page] [Code]

[4] **Cue3D: Quantifying the Role of Image Cues in Single-Image 3D Generation**
Xiang Li*, Zirui Wang*, Zixuan Huang, James M. Rehg
NeurIPS 2025 **(Spotlight)**
[Paper] [Project Page]

[5] **Symmetry Strikes Back: From Single-Image Symmetry Detection to 3D Generation**
Xiang Li, Zixuan Huang, Anh Thai, James M. Rehg
CVPR 2025 **(Highlight)**
[Paper] [Project Page] [Code]

[6] **Video State-Changing Object Segmentation**
Jiangwei Yu*, Xiang Li*, Xinran Zhao, Hongming Zhang, Yu-Xiong Wang
ICCV 2023
[Paper] [Project Page] [Code]

[7] **YouTubePD: A Multimodal Benchmark for Parkinson's Disease Analysis**
YouTubePD Team (Including Xiang Li)
NeurIPS Datasets and Benchmarks Track 2023
[Paper] [Project Page] [Dataset]

[8] **FSS-1000: A 1000-Class Dataset for Few-Shot Segmentation**
Xiang Li, Tianhan Wei, Yau Pun Chen, Yu-Wing Tai, Chi-Keung Tang
CVPR 2020
[Paper] [Dataset & Code]

Academic Service

Conference Reviewer: CVPR, ICCV, ECCV, NeurIPS, ICML, ICLR

Technical Skills

Languages & Frameworks: Python, PyTorch, JAX, CUDA, C++
Topics: Diffusion/flow Models, 3D Reconstruction (NeRF, 3D Gaussian Splatting), Video Generation, Large-Scale Training, RLHF/DPO