

Ying (Bridget) Jiang

Postdoctoral Researcher, AIVC Lab, UCLA

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RESEARCH FOCUS

Focusing on human–AI content creation across computer graphics, computer vision, digital media, artificial intelligence, human-AI interaction, and embodied AI, with directions in (a) human-centered creation tools, (b) physics-based generative models for content generation, and (c) simulation-driven generative AI for embodied AI (d) human-AI co creation.

BIO

Ying (Bridget) Jiang is a Postdoctoral Researcher in the AIVC Lab, Department of Mathematics at UCLA. She received her Ph.D. in Data and Systems Engineering from The University of Hong Kong in 2024, advised by Prof. Henry Y.K. Lau. Ying has published in top venues such as ACM SIGGRAPH, CVPR, CHI, IEEE TVCG, IROS, and ICRA, and her work has been supported by Sony Research. She is an active member of the research community, serving as a reviewer for SIGGRAPH, SIGGRAPH Asia, TVCG, Eurographics, Pacific Graphics, CHI, and other conferences and journals, and as a program committee member for Expressive 2025, VAM 2025 and Pacific Graphics 2025.

EDUCATION

University of California, Los Angeles

Postdoctoral Researcher, Department of Mathematics

Los Angeles, CA, USA

Oct. 2024 – Present

- Advisor: Prof. Chenfanfu Jiang

University of California, Los Angeles

Visiting Ph.D. Student, Department of Mathematics

Los Angeles, CA, USA

Dec. 2022 – Sep. 2024

- Advisor: Prof. Chenfanfu Jiang

The University of Hong Kong

Ph.D. in Data and Systems Engineering

Hong Kong

Nov. 2018 – Sep. 2024

- Advisor: Prof. Henry Y.K. Lau, Collaborator: Prof. Hongbo Fu

Northeastern University (China)

B.E. in Computer Science & Technology (Rank: 1/259)

Shenyang, China

Sep. 2014 – Jun. 2018

PUBLICATIONS [[GOOGLE SCHOLAR](#)] (*first/co-first author*)

Conference and Journal Papers:

- [1] VR-GS: A Physical Dynamics-Aware Interactive Gaussian Splatting System in VR. **ACM SIGGRAPH 2024**. **Ying Jiang***, Chang Yu*, Tianyi Xie*, Xuan Li*, Yutao Feng, Huamin Wang, Minchen Li, Henry Lau, Feng Gao, Yin Yang, Chenfanfu Jiang.
- [2] Region-Aware Color Smudging. **IEEE TVCG 2024**. **Ying Jiang**, Pengfei Xu, Hongbo Fu, Henry Lau, Wenping Wang.
- [3] HandPainter: 3D Sketching in VR with Hand-based Physical Proxy. **AIM CHI 2021**. **Ying Jiang**, Congyi Zhang, Hongbo Fu, Alberto Cannavò, Fabrizio Lamberti, Henry Lau, Wenping Wang.

- [4] PhysMotion: Physics-Grounded Dynamics from a Single Image. **3DV 2026**. Xiyang Tan*, **Ying Jiang***, Xuan Li*, Zeshun Zong, Tianyi Xie, Yin Yang, Chenfanfu Jiang.
- [5] Dress-1-to-3: Single Image to Simulation-Ready 3D Outfit with Diffusion Prior and Differentiable Physics. **ACM SIGGRAPH 2025**. Xuan Li*, Chang Yu*, Wenxin Du*, **Ying Jiang***, Tianyi Xie, Yunuo Chen, Yin Yang, Chenfanfu Jiang.
- [6] GarmentDreamer: 3DGS Guided Garment Synthesis with Diverse Geometry and Texture Details. **3DV 2025**. Boqian Li*, Xuan Li*, **Ying Jiang***, Tianyi Xie, Feng Gao, Huamin Wang, Yin Yang, Chenfanfu Jiang.
- [7] GRIP: A General Robotic IPC Simulation Dataset for Unified Deformable-Rigid Coupled Grasping. **IROS 2025**. Siyu Ma*, Wenxin Du*, Chang Yu*, **Ying Jiang***, Zeshun Zong, Tianyi Xie, Yunuo Chen, Yin Yang, Xuchen Han, Chenfanfu Jiang.
- [8] PhysAnimator: Physics-Guided Generative Cartoon Animation. **CVPR 2025**. Tianyi Xie, Yiwei Zhao, **Ying Jiang**, Chenfanfu Jiang.
- [9] Gaussian Splashing: Dynamic Fluid Synthesis with Gaussian Splatting. **CVPR 2025**. Yutao Feng*, Xiang Feng*, Yintong Shang, **Ying Jiang**, Chang Yu, Zeshun Zong, Tianjia Shao, Hongzhi Wu, Kun Zhou, Chenfanfu Jiang, Yin Yang.
- [10] Embedded IPC: Fast and Intersection-free Simulation in Reduced Subspace for Robot Manipulation. **ICRA 2025**. Wenxin Du*, Chang Yu*, Siyu Ma, **Ying Jiang**, Zeshun Zong, Yin Yang, Joe Masterjohn, Alejandro Castro, Xuchen Han, Chenfanfu Jiang.
- [11] Automatic 3D Scene Generation from a Single 2D Image. **AVR 2021**. Alberto Cannavò, Christian Bardella, Lorenzo Semeraro, Federico De Lorenzis, Congyi Zhang, **Ying Jiang**, Fabrizio Lamberti.

In preparation:

- [12] Birth of a Paint: Differentiable Brushstroke Reconstruction. Preprint. **Ying Jiang***, Jiayin Lu*, Yunuo Chen*, Yumeng Liu, Kui Wu, Yin Yang, Chenfanfu Jiang.
- [13] SPARK: Sim-ready Part-level Articulated Reconstruction with VLM Knowledge. Preprint. Yumeng He*, **Ying Jiang***, Jiayin Lu*, Yin Yang, Chenfanfu Jiang.
- [14] VoroLight: Toward Learnable Volumetric Voronoi Meshing. Preprint. Jiayin Lu*, **Ying Jiang***, Yin Yang, Chenfanfu Jiang.
- [15] AnimaMimic: Imitating 3D Animation from Video Priors. Preprint. Tianyi Xie*, Yunuo Chen*, Yaowei Guo*, **Ying Jiang**, Yin Yang, Chenfanfu Jiang.

Thesis:

- [1] **Ying Jiang**. Advanced Visual Computing for Digital Media Production. Ph.D. Dissertation, The University of Hong Kong, 2024.

FUNDING

Association for Women in Mathematics (AWM) Travel Fund	2025
<i>Funding for the AWM Research Symposium</i>	
Sony Focused Research Award	2025
<i>Topic: Physics-Aware 4D Generative and Interactive Clothed Human Avatar</i>	
<i>Collaborate with principal investigator Prof. Chenfanfu Jiang</i>	

Sony Faculty Innovation Award 2025

Topic: Interactive 3D Gaussian Splatting Dynamics
Collaborate with principal investigator Prof. Chenfanfu Jiang

Nvidia Research Award 2025

Topic: High-Fidelity, Real-Time Multiphysics Simulation for Advanced Robotic Virtual Environments
Collaborate with principal investigator Prof. Chenfanfu Jiang

TEACHING

Guest Lecturer at the University of British Columbia

CPSC532Z: Physics-Informed-AI Nov. 2025

Guest Lecturer at the University of Hong Kong

ELEC4547: Emerging Technologies in Virtual and Augmented Reality Nov. 2023

Teaching Assistant at Northeastern University (China)

Advanced Mathematics (Undergraduate) Fall 2017–Spring 2018

INVITED TALKS

AWM Research Symposium, University of Wisconsin-Madison May 2025

Topic: Math, Modelling, and Art: A Glimpse of 2D, 3D, 4D Content Generation

SOCAMS 2025, University of California, Riverside Apr. 2025

Topic: Physics-Driven Generative Models for Content Creation

WiMSoCal, CSU Fullerton Feb. 2025

Topic: Digital Art Creation with Advanced Visual Computing

Games Jul 2024

Topic: VR-GS: A Physical Dynamics-Aware Interactive Gaussian Splatting System in Virtual Reality.

Emerging Tech in VR/AR (ELEC4547), University of Hong Kong Nov. 2023

Topic: 3D Modelling, Sketching and Sculpting in VR

AIVC Lab, UCLA Jan. 2023

Topic: Digital Art Creation in Virtual Reality

RESEARCH COMMUNITY SERVICE

- Reviewer: SIGGRAPH, SIGGRAPH Asia, TVCG, Eurographics, Pacific Graphics, Computer & Graphics, CAD/Graphics, TCSVT, CHI, ISMAR, CSCW, DIS, IEEE VR, RAL, 3DV.
- Program Committee: Expressive Symposium (Expressive 2025), Pacific Graphics (PG 2025).
- Technical Committee: IEEE VAM (Virtual Reality, Augmented Reality, Metaverse).

MENTORING

Yanjiang Huang, *Master's student at TAMU, Topic: Robot Craft* Nov. 2025 – Present

Rosalinda Chen, *Undergraduate student at UCLA, Topic: Robot Learning* Sep. 2025 – Present

Yusi Sun, *PhD student at HKU, Topic: Human-AI Co-Creation* Sep. 2025 – Present

Tao Zeng, *Master's student at FDU, Topic: Garment Synthesis* Jul. 2025 – Present

Yumeng He, *Master's student at USC, Topic: Articulated Object Reconstruction (in submission)* Jun. 2025 – Present

Xiyang Tan, *Undergraduate at USTC, Publication: PhysMotion (3DV 2026)* May 2024 – Nov. 2024

Siyu Ma, *Master's student at UCSD, Publication: GRIP (IROS 2025)* Feb. 2024 – Feb. 2025

Boqian Li, *Undergraduate at HUST, Publication: GarmentDreamer (3DV 2025)* Nov. 2023 – May 2024

Joy Liu, *Undergraduate at UCLA, Topic: 3DGS Selection & Editing* Oct. 2023 – Jun. 2024

SELECTED PUBLICITY

- [\[ACM SIGGRAPH\]](#) 3D Generative AI Transforms How We Create, Design, Interact With Digital Content.
- [\[Radiance Fields\]](#) VR-GS: Physics Based Gaussian Splatting in VR.