Tianyi Xie

Email: tianyixie77@gmail.com | Github: XPandora | Website: https://xpandora.github.io/

EDUCATION

University of California, Los Angeles   03/2023 - Present
Ph.D. in Computer Science
Advisor: Prof. Chenfanfu Jiang and Prof. Demetri Terzopoulos

University of California, Los Angeles   09/2021 - 03/2023
M.Sc. in Computer Science

Shanghai Jiao Tong University   09/2016 - 06/2020
B.Eng. in Software Engineering

RESEARCH INTERESTS

Physics-based Simulation, Generative AI

PUBLICATIONS

Atlas3D: Physically Constrained Self-Supporting Text-to-3D for Simulation and Fabrication
arXiv: 2405.18515, 2024
Yunuo Chen*, **Tianyi Xie***, Zeshun Zong* (equal contribution), Xuan Li, Feng Gao, Yin Yang, Ying Nian Wu, Chenfanfu Jiang

VideoPhy: Evaluating Physical Commonsense In Video Generation
arXiv: 2406.03520, 2024
Hritik Bansal, Zongyu Lin, **Tianyi Xie**, Zeshun Zong, Chenfanfu Jiang, Yizhou Sun, Kai-Wei Chang, Aditya Grover

GarmentDreamer: 3DGS Guided Garment Synthesis with Diverse Geometry and Texture Details
arXiv: 2405.12420, 2024
Boqian Li*, Xuan Li*, Ying Jiang* (equal contribution), **Tianyi Xie**, Feng Gao, Huamin Wang, Yin Yang, Chenfanfu Jiang

VR-GS: A Physical Dynamics-Aware Interactive Gaussian Splatting System in Virtual Reality
ACM SIGGRAPH, 2024
Ying Jiang*, Chang Yu*, **Tianyi Xie***, Xuan Li* (equal contributions), Yutao Feng, Huamin Wang, Minchen Li, Henry Lau, Feng Gao, Yin Yang, Chenfanfu Jiang

PhysGaussian: Physics-Integrated 3D Gaussians for Generative Dynamics
Conference on Computer Vision and Pattern Recognition (CVPR), 2024
Highlight (11.9%)
Tianyi Xie*, Zeshun Zong*, Yuxing Qiu*, Xuan Li* (equal contribution), Yutao Feng, Yin Yang, Chenfanfu Jiang

A Contact Proxy Splitting Method for Lagrangian Solid-Fluid Coupling
ACM Transactions On Graphics (SIGGRAPH), 2023
Tianyi Xie, Minchen Li, Yin Yang, Chenfanfu Jiang

Multi-Layer Thick Shells
ACM SIGGRAPH, 2023
Yunuo Chen, **Tianyi Xie**, Cem Yuksel, Danny Kaufman, Yin Yang, Chenfanfu Jiang, Minchen Li

Towards Realistic Visual Dubbing with Heterogeneous Sources
ACM International Conference on Multimedia (ACM MM), 2021
Tianyi Xie, Liucheng Liao, Cheng Bi, Benlai Tang, Xiang Yin, Jianfei Yang, Mingjie Wang, Jiali Yao, Zejun Ma

CHECKER: Detecting Clickbait Thumbnails with Weak Supervision and Co-teaching
European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML PKDD), 2021
Tianyi Xie, Thai Le, Dongwon Lee

EXPERIENCES

Research Intern   **06/2024 – Present**
Netflix Research
- Mentor: Yiwei Zhao
- Research Topic: Controllable video generation

Research Intern   **04/2020 – 07/2021**
Bytedance AI Lab, Shanghai
- Research Topic: GAN based audio-driven avatar generation

Research Assistant   **07/2019 – 11/2019**
The PIKE Group, The Pennsylvania State University
- Advisor: Prof. Dongwon Lee
- Research Topic: Clickbait thumbnail detection with weak supervision

SCHOLARSHIP & AWARDS

- Tung OOCL Scholarship (top 10% in SJTU),   2019
- B-Class Academic Excellence Scholarship (top 10% in SJTU),   2017-2019
- Huawei Scholarship (top 10% in SJTU),   2018
- First Prize of the National College Students Physics Competition (Shanghai Zone),   2018
- Wish Scholarship (top 5% in SJTU),   2017
- SJTU Merit Student,   2017