Xiangjun Tang

xiangjun.tang@outlook.com | Solve real-world problems | A https://yuyujunjun.github.io/

Education _

Ph.D. in Electronic Information

Advised by Xiaogang Jin in State Key Lab of CAD&CG, Zhejiang University

M.S. in Computer Science and Technology

Advised by Xiaogang Jin in State Key Lab of CAD&CG, Zhejiang University

B.S. in Digital Media

Zhejiang University

Awards and Honors _____

Aug. 2023	Style3D Graduate Fellowship from Linctex Digital Co., LTD.
Dec. 2022	Graduate of Merit/Triple A graduate from Zhejiang University, 2^{nd} Honours
Dec. 2021	Award of Honor for Graduate from Zhejiang University
Dec. 2018	National Scholarship from Ministry of Education of the People's Republic of China, 1^{st} Honour

Research Projects _____

Motion Generation

- Proposed a method for generating high-quality in-between motions with varying target frames and durations in real-time.
- Led a junior colleague in proposing a fast, versatile, and controllable method for generating high-quality in-between styled motion online.
- Led a junior colleague to decouple contact from motion for fine-grained motion style transfer, improving the quality and controllability.

Vulkan based Cross-platform Particle System Engine

- Led two junior colleagues in building an animation and rendering engine for a particle system.
- The system includes collision avoidance, group animation, application of external forces based on point cloud and SDF, keyframe attribute editing, and has been commercially deployed on Oppo phones.

Parametric Facial Editing

- Contributed, as a part of a team, to automatically adjust the proportion of input portrait while retaining personal facial features. My responsibilities included 3D to 2D projection, image warping, and optimization for background distortion removal.
- Led a junior colleague in presenting a parametric method to efficiently reshape a portrait in videos, producing a smooth, retouched outcome.

Virtual Reality

- Proposed a novel shape-constrained fireworks simulation method with rich textures in an HMD virtual environment using sketched feature lines as input.
- Proposed a novel VR modeling tool that uses volume skeleton-based convolution surfaces. It enables the user to draw with arbitrarily shaped brushed and generate 3D manifold objects by fusing the brushed primitives.

First-authored Publications

RSM1: Real-time Stylized Motion Transition for Characters	SIGGRAPH
SIGGRAPH '23 Conference Proceedings, Los Angeles, 6-10 August, 2023.	2023
 Xiangjun Tang, Linjun Wu, He Wang, Bo Hu, Xu Gong, Yuchen Liao, Songnan Li, Qilong Kou, and Xiaogang Jin. Project Page: yuyujunjun.github.io/publications/Siggraph2023_RSMT/ Source Code: github.com/yuyujunjun/RSMT-Realtime-Stylized-Motion-Transition 	
Real-time Controllable Motion Transition for Characters	
ACM Transactions on Graphics (Proc. Siggraph 2022), 2022, 41(4): Article No.: 137.	2022
 Xiangjun Tang, He Wang, Bo Hu, Xu Gong, Ruifan Yi, Qilong Kou, and Xiaogang Jin. Project Page: vuvuiuniun.github.io/publications/TOG2022 Transition 	

Hangzhou, China Sep. 2020 - Exp. Jun. 2024

> Hangzhou, China Sep. 2019 - Jun. 2020

Hangzhou, China

Sep. 2015 - Jun. 2019

Zhejiang University 2021-present

Zhejiang University 2020-2021

Zhejiang University 2019-2021

Zhejiang University 2018-2019

SIGGRAPH

Parametric Reshaping of Portraits in Videos

Proceedings of the 29th ACM International Conference on Multimedia, 4689-4697.

• Xiangjun Tang, Wenxin Sun, Yong-Liang Yang, and Xiaogang Jin.

• Project Page: yuyujunjun.github.io/publications/ACMMM2021_Reshaping_Videos/

Additional Publications

3DBrushVR: From Virtual Reality Primitives to Complex Manifold Objects	ISMAR-Adjunct
IEEE International Symposium on Mixed and Augmented Reality Adjunct, 2022.	2022
• Yuzhen Zhu, Xiangjun Tang, Jing Zhang, Ye Pan, Jingjing Shen, Xiaogang Jin.	
Efficient Real-time Dynamic Diffuse Global Illumination using Signed Distance Fields	Vis Comput
The Visual Computer (Special Issue of CGI' 2021), 2021.	2021
• Jinkai Hu, Milo K Yip, Guillermo Elias Alonso, Shihao Gu, Xiangjun Tang, Xiaogang Jin.	
Wowtao: A Personalized Pottery-Making System	Comput Ind
Computers in Industry, 2021.	2021
• Ruifan Cai, Yingying Lin, Honglin Li, Yuzhen Zhu, Xiangjun Tang, Yanjun Weng, Lihua You, Xiaogang Jin	
Deep Shapely Portrait	ACM MM
Proceedings of the 28th ACM International Conference on Multimedia, 1800-1808.	2020
• Qinjie Xiao, Xiangjun Tang, You Wu, Leyang Jin, Yong-Liang Yang, and Xiaogang Jin.	
Sketch-based Shape-constrained Fireworks Simulation in Head-Mounted Virtual	CANNY
Reality	CAV W
Computer Animation and Virtual Worlds, 2020.	2020
• Xiaoyu Cui, Ruifan Cai, Xiangjun Tang, Zhigang Deng, Xiaogang Jin.	

Presentations _

Motion Synthesis from My Perspective

• Invited talk by Mihoyo, Aug, 2023.

Real-time, High-quality and Stylized In-between Motion Generation

• Style 3D Open Day - Scholarship Certification and Communication Conference, Aug, 2023.

RSMT: Real-time Stylized Motion Transitions for Characters

- SIGGRAPH Technique Paper Session, Aug, 2023.
- CSIG SIGGRAPH Preview Presentations, Jul, 2023.

Parametric Reshaping of Portraits in Videos

• 29th ACM MM, Oct, 2021.

Professional Activities _____

Reviewer for

Transactions on Graphics 2023 SIGGRAPH Asia 2023 The Visual Computer (TVCJ) 2023 CGI 2023

Technical Skills _____

Graphics API Vulkan, OpenGL, Unity3D Engine, GPU-based Programming (Cuda, Compute Shader)

Programming C++, Python

Referees _____

• Prof. He Wang

Associate Professor, Department of Computer Science, University College London, UK

he_wang@ucl.ac.uk