






Yangyang Xu

CONTACT INFORMATION

PostDoc of Department of Computer Science, The University of Hong Kong.
Ph.D. of School of Computer Science and Engineering, South China University of Technology.

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RESEARCH INTEREST

My research mainly focuses on **generative models and their applications**, including image&video generation, editing, translation, and super-resolution.
I am also interested in image&video matting, zero&few-shot learning, domain adaptation, and 2D&3D action recognition.

EXPERIENCE & EDUCATION

<i>PostDoc</i>	Dec/2021 - now
The University of Hong Kong, Department of Computer Science	
Supervisor: Prof. Ping Luo	
<i>Researcher (Adjunct)</i>	Jul/2022 - now
Shanghai AI Laboratory	
Leader: Prof. Yu Qiao and Dr. Bo Dai	
<i>Intern</i>	Sep/2021 - Nov/2021
Tencent, Interactive Entertainment Group, Turing Lab	
Mentor: Dr. Junle Wang	
<i>Ph.D.</i>	Jul/2018 - Aug/2021
South China University of Technology, China	
Supervisor: Prof. Shengfeng He and Prof. Xuemiao Xu	

PUBLICATION

Summary: **CVPR & ICCV (2), IEEE & ACM Transactions (10)**

+ Equal Contribution

- [1] **Parsing-Conditioned Anime Translation: A New Dataset and Method**
Zhansheng Li⁺, [Yangyang Xu⁺](#), Nanxuan Zhao, Yang Zhou, Yongtuo Liu, Dahua Lin, and Shengfeng He
ACM Transactions on Graphics (**TOG**), 2023.

- [2] **High-resolution Face Swapping via Latent Semantics Disentanglement**
Yangyang Xu, Bailin Deng, Junle Wang, Yanqing Jing, Jia Pan, and Shengfeng He
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022.
- [3] **From Continuity to Editability: Inverting GANs with Consecutive Images**
Yangyang Xu, Yong Du, Wenpeng Xiao, Xuemiao Xu, and Shengfeng He
IEEE/CVF International Conference on Computer Vision (ICCV), 2021.
- [4] **Self-supervised Matting-specific Portrait Enhancement and Generation**
Yangyang Xu, Zeyang Zhou, and Shengfeng He
IEEE Transactions on Image Processing (TIP), 2022.
DOI: 10.1109/TIP.2022.3194711
- [5] **Pro-PULSE: Learning Progressive Encoders of Latent Semantics in GANs for Photo Upsampling**
Yang Zhou⁺, Yangyang Xu⁺, Yong Du, Qiang Wen, and Shengfeng He
IEEE Transactions on Image Processing (TIP), 2022.
DOI: 10.1109/TIP.2022.3140603
- [6] **Multi-view Face Synthesis via Progressive Face Flow**
Yangyang Xu, Xuemiao Xu, Jianbo Jiao, Keke Li, Cheng Xu, and Shengfeng He
IEEE Transactions on Image Processing (TIP), 2021.
DOI: 10.1109/TIP.2021.3090658
- [7] **Transductive Zero-shot Action Recognition via Visually-connected Graph Convolutional Networks**
Yangyang Xu, Chu Han, Jing Qin, Xuemiao Xu, Guoqiang Han, and Shengfeng He
IEEE Transactions on Neural Networks and Learning Systems (TNNLS), 2020.
DOI: 10.1109/TNNLS.2020.3015848
- [8] **Holistically-Associated Transductive Zero-Shot Learning**
Yangyang Xu, Xuemiao Xu, Guoqiang Han, and Shengfeng He
IEEE Transactions on Cognitive and Developmental Systems (TCDS), 2021.
DOI: 10.1109/TCDS.2021.3049274
- [9] **Invertible Grayscale with Sparsity Enforcing Priors**
Yong Du, Yangyang Xu, Taizhong Ye, Qiang Wen, Chufeng Xiao, Junyu Dong, Guoqiang Han, and Shengfeng He
ACM Transactions on Multimedia Computing Communications and Applications (TOMM), 2021.
DOI: 10.1145/3451993
- [10] **Background Matting via Recursive Excitation**
Junjie Deng⁺, Yangyang Xu⁺, Zeyang Zhou, and Shengfeng He
IEEE International Conference on Multimedia and Expo (ICME), 2022, (Oral).
- [11] **Unsupervised Domain Adaptation via Importance Sampling**
Xuemiao Xu, Hai He, Huaidong Zhang, Yangyang Xu, and Shengfeng He
IEEE Transactions on Circuits and Systems for Video Technology (TCSVT), 2019.
DOI: 10.1109/TCSVT.2019.2963318
- [12] **Deep Texture-Aware Features for Camouflaged Object Detection**
Jingjing Ren, Xiaowei Hu, Lei Zhu, Xuemiao Xu, Yangyang Xu, Weiming Wang, Zijun Deng, and Pheng-Ann Heng
IEEE Transactions on Circuits and Systems for Video Technology (TCSVT),

2021.

DOI: 10.1109/TCSVT.2021.3126591

- [13] **Representative Feature Alignment for Adaptive Object Detection**
Shan Xu, Huaidong Zhang, Xuemiao Xu, Xiaowei Hu, Yangyang Xu, Liangui Dai, Pheng-Ann Heng, and Kup-Sze Choi
IEEE Transactions on Circuits and Systems for Video Technology (TCSVT), 2021.
DOI: 10.1109/TCSVT.2022.3202094
- [14] **Ensemble One-Dimensional Convolution Neural Networks for Skeleton-Based Action Recognition**
Yangyang Xu, Jun Cheng, Lei Wang, Feng Liu, and Dapeng Tao
IEEE Signal Processing Letters (SPL), 2018.
DOI: 10.1109/LSP.2018.2841649
- [15] **Human Action Recognition by Learning Spatio-Temporal Features With Deep Neural Networks**
Lei Wang, Yangyang Xu, Jun Cheng, Jianqin Yin, and Jiaji Wu
IEEE Access, 2018.
DOI: 10.1109/ACCESS.2018.2817253
- [16] **DTA: Double LSTM with temporal-wise attention network for action recognition**
Yangyang Xu, Lei Wang, Jun Cheng, and Jiaji Wu
IEEE International Conference on Computer and Communications. 2017.
DOI: 10.1109/CompComm.2017.8322825

IN SUBMISSION

- [1] **HoliStyle: Discovering Holistic Interpretable Direction for Multi-Attribute Face Editing**
Yangyang Xu⁺, Ruihua Zeng⁺, Xuemiao Xu, Ping Luo, and Shengfeng He
Submitted to ACM Transactions on Graphics (TOG), Major revision
- [2] **RIGID: Recurrent GAN Inversion and Editing of Real Face Videos**
Yangyang Xu, Shengfeng He, Kwan-Yee K. Wong, and Ping Luo
Submitted to IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023.
- [3] **Learning Coherent Video2Anime Translation via Latent Cyclic Transformation**
Yangyang Xu, Shengfeng He, Zhansheng Li, Bo Dai, Yu Qiao, and Ping Luo
Submitted to IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023.
- [4] **Open-set Mixed Domain Adaptation via Visual-Linguistic Focal Evolving**
Bangzhen Liu, Yangyang Xu, Xuemiao Xu, and Shengfeng He
Submitted to IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
- [5] **Let Your Light Shine: Foreground Matting via Deep Flash Priors**
Tianyi Xiang, Qingxuan Hu, Chenyi Zi, Yangyang Xu, Nanxuan Zhao, Junle Wang, and Shengfeng He
Submitted to IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)

[6] **Reference-based Screentone Transfer via Pattern Correspondence and Regularization**

Zhansheng Li, Nanxuan Zhao, Zongwei Wu, Yihua Dai, **Yangyang Xu**, Junle Wang, Yanqing Jing, Shengfeng He

Submitted to Computer Graphics Forum (CGF), Minor revision

ACTIVITIES

1. **Reviewer:**

ICCV 2023, ICML 2023, CVPR 2023, SIGGRAPH 2022, SIGGRAPH Asia 2022, NeurIPS 2022, ICML 2022, CVPR 2022, ICCV 2021, CVPR 2021, AAAI 2021, ECCV 2020, CVPR 2020, P&G 2020.

IEEE TIP, IEEE TNNLS, Pattern Recognition, Neural Computing, IEEE SPL.

2. **Seminar report:**

“Graph Convolutional Neural Networks for Zero-shot Action Recognition”, City University of Hong Kong, Hong Kong. Dec/2018

“Research on Several Problems Based on Generative Adversarial Models”, Tencent, Shenzhen. Nov/2021

“Image and Video Editing Based on Generative Adversarial Networks”, Shanghai AI Lab, Shanghai. Jun/2022

“Image and Video Processing using Generative Models”, VITA Lab in EPFL, Remote. Feb/2023

3. **Volunteer:**

Chinagraph 2018

PROGRAM SKILLS

Proficiency with Python, Matlab, C/C++.