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, and 2D&3D action recognition.

EXPERIENCE & EDUCATION

Young Researcher (Part-time)	Jul/2022 - now

Shanghai AI Laboratory
Leader: Prof. Yu Qiao and Dr. Bo Dai

PostDoc	Dec/2021 - now

The University of Hong Kong, Department of Computer Science
Supervisor: Prof. Ping Luo

Intern	Sep/2021 - Nov/2021

Tencent, Interactive Entertainment Group, Turing Lab
Mentor: Dr. Junle Wang

Ph.D.	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** (9)

⁺ Equal Contribution

[1] **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.

[2] **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.

[3] **Self-supervised Matting-specific Portrait Enhancement and Generation**
Yangyang Xu, Zeyang Zhou, Shengfeng He
IEEE Transactions on Image Processing (**TIP**), 2022.
DOI: 10.1109/TIP.2022.3194711

[4] **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

[5] **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

[6] **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

[7] **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

[8] **Invertible Grayscale with Sparsity Enforcing Priors**
*Yong Du, **Yangyang Xu**, Taizhong Ye, Qiang Wen, Chufeng Xiao, Junyu Dong, Guoqiang Han, Shengfeng He*
ACM Transactions on Multimedia Computing Communications and Applications (**TOMM**), 2021.
DOI: 10.1145/3451993

[9] **Background Matting via Recursive Excitation**
*Junjie Deng[+], **Yangyang Xu**[+], Zeyang Zhou and Shengfeng He*
IEEE International Conference on Multimedia and Expo (**ICME**), 2022, (**Oral**).

[10] **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

[11] **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

[12] **Representative Feature Alignment for Adaptive Object Detection**
*Shan Xu, Huaidong Zhang, Xuemiao Xu, Xiaowei Hu, **Yangyang Xu**, Liangui Dai, Pheng-Ann Heng, Kup-Sze Choi*

IEEE Transactions on Circuits and Systems for Video Technology (**TCSVT**), 2021.
DOI: 10.1109/TCSVT.2022.3202094

[13] **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

[14] **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

[15] **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

PRE-PRINT

[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
Submitted to ACM Transactions on Graphics (**TOG**), *Major revision*

[2] **HoliStyle: Discovering Holistic Interpretable Direction for Multi-Attribute Face Editing**
Ruihua Zeng[+], Yangyang Xu[+], Xuemiao Xu, Ping Luo and Shengfeng He
Submitted to ACM Transactions on Graphics (**TOG**), *Revise and Resubmit*

[3] **Open-set Mixed Domain Adaptation via Visual-Linguistic Focal Evolving**
Bangzhen Liu, Yangyang Xu, Xuemiao Xu, Shengfeng He
Submitted to IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**)

[4] **RIGID: Recurrent GAN Inversion and Editing of Real Face Videos**
Yangyang Xu, Shengfeng He, Kwan-Yee K. Wong, Ping Luo
Submitted to IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**), 2023.

[5] **Learning Coherent Video2Anime Translation via Latent Cyclic Transformation**
Yangyang Xu, Shengfeng He, Zhansheng Li, Bo Dai, Yu Qiao, Ping Luo
Submitted to IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**), 2023.

ACTIVITIES

1. **Reviewer**:
   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

3. **Volunteer**:

Chinagraph 2018

PROGRAM SKILLS

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