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

PostDoc Dec/2021 - now
The University of Hong Kong, Department of Computer Science
Supervisor: Prof. Ping Luo

Researcher (Adjunct) Jul/2022 - now
Shanghai AI Laboratory
Leader: Prof. Yu Qiao

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** (3), **IEEE & ACM Transactions** (10)

$^{+}$ Equal Contribution

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

[2] **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.

[3] **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.

[4] **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.

[5] **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

[6] **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

[7] **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

[8] **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

[9] **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

[10] **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

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

[12] **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

[13] **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

[14] **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

[15] **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

[16] **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

[17] **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

ACTIVITIES

1. **Reviewer**:

   NeurIPS 2023, **SIGGRAPH** 2023, **ICCV** 2023, **ICML** 2023, **CVPR** 2023, **SIGGRAPH** 2022, **SIGGRAPH Asia** 2022, **NeurIPS** 2022, **ECCV** 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++.