#### 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.

★ Homepage: cnnlstm.github.io **5** E-mail: cnnlstm@gmail.com

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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)

- [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<sup>+</sup>, Yangyang Xu<sup>+</sup>, Nanxuan Zhao, Yang Zhou, Yongtuo Liu, Dahua

<sup>&</sup>lt;sup>+</sup> Equal Contribution

*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<sup>+</sup>, **Yangyang Xu**<sup>+</sup>, 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*<sup>+</sup>, *Yangyang Xu*<sup>+</sup>, *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++.