

Education

Ph.D., The Hong Kong Polytechnic University

FULL SCHOLARSHIP, SUPERVISED BY PROF. KIN-MAN LAM

- **Research Topics:** image/video restoration and enhancement, computational photography, and deep learning models.

Hong Kong

Sep. 2018 - Sep. 2022

Master, The Hong Kong Polytechnic University

MSC IN ELECTRONIC AND INFORMATION ENGINEERING (**DISTINCTION**)

- **Award:** The Outstanding Post-graduate Student Scholarship. (**Top 5%**)

Hong Kong

Sep. 2016 - Mar. 2018

Bachelor, Guangdong University of Technology

BENG IN TELECOMMUNICATION AND ENGINEERING

- **Award:** The Outstanding Student Scholarships. (**Top 5%**)

Guangzhou, China

Sep. 2012 - Jun. 2016

Working Experience

Postdoctoral Fellow, The Hong Kong Polytechnic University

FULL-TIME, (**RESEARCH TALENT HUB**)

- Focus on image/video synthesis, restoration, and enhancement (e.g., super-resolution, denoising, high dynamic range imaging, etc.), deep generative models (e.g., diffusion models), and AIGC.

Hong Kong

Oct. 2022-Present

Computer Vision Researcher, Microsoft Research Asia (MSRA)

INTERNSHIP, (**AWARD: STARS OF TOMORROW**)

- Responsible for the project “online video restoration and enhancement system”; Accelerate the processing speed of online video products; Publish a high-quality paper in IEEE transaction on Multimedia.

Shanghai, China

Sep. 2021-Jan. 2022

Professional Skills

Programming Skills Python (proficient), Matlab, C++, Pytorch (proficient), Microsoft Azure (proficient), Spark, Scikit-Learn (proficient), SQL.
Languages Mandarin (native speaker), Cantonese (native speaker), English

Publications

1. **Jun Xiao**, Zihang Lyu, Cong Zhang, Yakun Ju, Changjian Shui, and Kin-Man Lam. “Towards Progressive Multi-Frequency Representation for Image Warping”, in Proceedings of the **IEEE Conference on Computer Vision and Pattern Recognition (CVPR)**, 2024. (Accepted)
2. **Jun Xiao**, Kin-Man Lam, et al. “Online Video Super-Resolution with Convolutional Kernel Bypass Graft”, **IEEE Transaction on Multimedia**, 2023.
3. Cong Zhang, Tianshan Liu, **Jun Xiao**, Kin-Man Lam, and Qi Wang. “Boosting Object Detectors via Strong classification Weak-localization Pretraining in Remote Sensing Imagery”, **IEEE Transactions on Instrumentation and Measurement**, 2023.
4. Cuixin Yang, **Jun Xiao**, YaKun Ju, Guoping Qiu, and Kin-Man Lam. “Improving Robustness of Single Image Super-resolution Models with Monte Carlo Method”, in Proceedings of the **IEEE International Conference on Image Processing (ICIP)**, 2023.
5. Yakun Ju, Kin-Man Lam, **Jun Xiao**, Cong Zhang, Cuixin Yang, and Junyu Dong. “Efficient Feature Fusion for Learning-based Photometric Stereo”, in Proceedings of the **IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)**, 2023.
6. **Jun, Xiao**, Qian, Ye, Rui Zhao, Kin-Man Lam, and Kao Wan. “Self-feature Learning: An Efficient Deep Lightweight Model for Image Super-resolution”, in Proceedings of the **ACM Conference on Multimedia**, 2021.
7. Qian Ye, **Jun Xiao**, et al. “Progressive and Selective Fusion Network for High Dynamic Range Imaging”, in Proceedings of the **ACM conference on Multimedia**, 2021.

8. Rui Zhao, Tianshan Liu, **Jun Xiao**, et al. "Invertible Image Decolorization", **IEEE Transactions on Image Processing**, 2021.
9. **Jun Xiao**, Tianshan Liu, Rui Zhao, and Kin-Man Lam, "Balanced Distortion and Perception in Single-Image Super-Resolution Based on Optimal Transport in Wavelet Domain", **Neuracomputing**, 2021.
10. **Jun Xiao**, Rui zhao, Kin-Man Lam, et al, "Bayesian Sparse Hierarchical Model for Image Denoisin", **Signal Processing: Image Communication**, 2021.
11. **Jun Xiao**, Wenqi Jia, and Kin-Man Lam, "Feature Redundancy Mining: Deep Light-weight Image Super-resolution Model", in Proceedings of the **International Conference on Acoustics, Speech and Signal Processing (ICASSP)**, 2021.
12. Tianshan Liu, Rui Zhao, **Jun Xiao**, and Kin-Man Lam, "Progressive Motion Representation Distillation With Two-Branch Networks for Egocentric Activity Recognition", **IEEE Signal Processing Letters**, 2020.
13. **Jun Xiao**, Rui Zhao, and Kin-Man Lam, "Elastic net with adaptive weight for image denoising", In **International Workshop on Advanced Imaging Technology (IWAIT)**, 2020.
14. **Jun Xiao**, Rui Zhao, Shun-Cheung Lai, Wenqi Jia, and Kin-Man Lam, "Deep Progressive Convolutional Neural Network for Blind Super-Resolution With Multiple Degradations", in Proceedings of the **IEEE International Conference on Image Processing (ICIP)**, 2019.
15. Runze Zhang, Zhong Guan, Shun-Cheung Lai, **Jun Xiao**, and Kin-Man Lam, "Deep Neural Networks for Lung Cancer Tumor Region Segmentation", In **International Workshop on Advanced Imaging Technology (IWAIT)**, 2019.

Academic Experience

- **Regular Reviewer:**

- Journals:
 - * IEEE Transactions on Circuits and Systems for Video Technology
 - * Pattern Recognition
 - * Knowledge-based Systems
 - * Information Fusion
- Conferences:
 - * European Conference on Computer Vision (ECCV): 2024
 - * ACM Conference on Multimedia (ACM-MM): 2022, 2023, 2024
 - * Asia Conference on Computer Vision (ACCV), 2022
 - * Winter Conference on Applications of Computer Vision (WACV): 2022, 2024
 - * IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP): 2023
 - * IEEE International Conference on Visual Communications and Image Processing (VCIP): 2020, 2022.

- **Student assistant:**

- IEEE International Conference on Visual Communications and Image Processing (VCIP), 2020.
- IEEE International Conference on Multimedia and Expo (ICME), 2017.