Xin Feng

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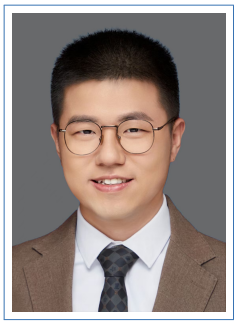
Google scholar *Github*



Education Background

09/2019 – 08/2023 Harbin Institute of Technology at Shenzhen (**HIT**)
PhD of Computer Science and Technology
Co-Supervisors: Prof. Guangming Lu and Prof. Wenjie Pei
Research Area: *Blind Image Restoration, Continual Learning, Generative Models, Image Inpainting*

09/2017 – 06/2019 Beijing Forestry University (**BFU**)
Master of Control Engineering
Supervisor: Prof. Jiangming Kan
Research Area: *Video Understanding, Depth Estimation, Neural Architecture Search*

Experience

10/2023 – Present China Tobacco Henan Industrial Co.,Ltd., Information Center
Technical Section Chief, working on AI applications in industrial scenarios, including LLM, anomaly detection, video understanding, etc.

06/2022 – 09/2022 Huawei Noah Ark's Lab Shenzhen
Low-level Vision Research Internship, Supervisor: Dr. Xueyi Zou
Research Area: Image Restoration, Image Super-resolution, Image Inpainting

08/2018 – 06/2019 iQIYI Technology Beijing
Video Understanding Research Internship, Supervisor: Dr. Ruijin Jin
Research Area: Action Recognition, Video Summarization, Video Highlight

06/2018 – 08/2018 Peking University Visiting Internship
Research Area: Generative Models, Information Security

Reserach Interests

- Low-level vision
- Continual learning
- Generative models
- Sequential modeling
- Efficient Neural Architectures
- Image Restoration and Enhancement

Review Experience

- 2024: CVPR, ECCV, AAAI, ACM MM, ACCV, TCSVT, CVIU, Knowledge-based Systems
- 2023: CVPR, ICCV, ACM MM, TIP
- 2022: CVPR, ECCV, Biomedical Signal Processing and Control

Publications

Published Papers

[1] **Xin Feng,** Yifeng Xu, Wenjie Pei, Guangming Lu†. Hierarchical Contrastive Learning for Pattern-Generalizable Image Corruption Detection. IEEE International Conference on Computer Vision **(ICCV)**, 2023.

[2] Fengjun Li*, **Xin Feng*,** Fanglin Chen, Guangming Lu, Wenjie Pei†. Learning Generalizable Latent Representations for Novel Degradations in Super-Resolution. Proceedings of the 30th ACM International Conference on Multimedia **(MM)**, 2022.

[3] **Xin Feng,** Wenjie Pei, Zihui Jia, Fanglin Chen, Guangming Lu†, David Zhang. Deep-Masking Generative Network: A Unified Framework for Background Restoration from Superimposed Images. IEEE Transactions on Image Processing **(TIP)** (Impact Factor=10.8), 2021.

[4] Wenjie Pei*, **Xin Feng*,** Canmiao Fu, Qiong Cao, Guangming Lu†, Yu-Wing Tai. Non-local Recurrent Neural Memory for Sequence Representation Learning. International Journal of Computer Vision **(IJCV)** (Impact Factor=11.6, student first author), 2022.

[5] **Xin Feng,** Wenjie Pei, Fengjun Li, David Zhang, Guangming Lu†. Generative Memory-Guided Semantic Reasoning Model for Image Inpainting. IEEE Transactions on Circuits and Systems for Video Technology **(TCSVT)** (Impact Factor=8.3), 2022.

[6] **Xin Feng,** Haobo Ji, Wenjie Pei, Jinxing Li, Guangming Lu†, David Zhang. U^2-Former: Nested U-shaped Transformer for Image Restoration via Multi-view Contrastive Learning. IEEE Transactions on Circuits and Systems for Video Technology **(TCSVT)** (Impact Factor=8.3), 2023.

[7] **Xin Feng,** Jianyong Lin, Chun-Mei Feng, Guangming Lu†. GAN inversion-based semi-supervised learning for medical image segmentation. Biomedical Signal Processing and Control **(BSPC)** (Impact Factor=4.9), 2023.

[8] **Xin Feng,** Ji Haobo, Jiang Bo, Pei Wenjie, Chen Fanglin, Lu Guangming†. Contrastive Feature Decomposition for Image Reflection Removal. IEEE International Conference on Multimedia and Expo **(ICME) oral**, 2021.

Preprint Paper

[1] **Xin Feng,** Haobo Ji, Wenjie Pei, Fanglin Chen, Guangming Lu†. Global-local Stepwise Generative Network for Ultra High-resolution Image Restoration. **arxiv2022**.

Patents

3 patents conducted in China Tobacco Information Center, which are confidential temporarily.

Awards

2024 Outstanding Doctoral Dissertation Award, Shenzhen Association for Artificial Intelligence

2022 National Scholarships for PhD students (**Ranked top 0.2%**), Ministry of Education (China)

Selected Projects

2023 Palm Vein Image Reflection Restoration and Recognition, participant, Tencent

2022 Video Understanding based on Deep Semantic Spatio-Temporal Representation, participant, National Natural Science Foundation of China

2021 Research on Structural Optimization by Dynamic Perception for Deep Models, participant, National Natural Science Foundation of China