Tao Wang

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Jiangsu, P. R. China.

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RESEARCH Interests

EDUCATION

Visual tracking, Image and video quality restoration, Adversarial learning, Reinforcement learning

Department of Computer Science and Technology, Nanjing University (NJU), Jiangsu, P. R. China

Ph.D., Pattern recognition and computer vision, July 2021

• Advisor: Professor Tong Lu

College of Computer and Artificial Intelligence, Wenzhou University, Zhejiang, P. R. China

M.E., Pattern recognition and intelligent system, GPA: 3.72 / 4.0, Jun 2021

- Dissertation: "Attention Based Neural Network for Image and Video Restoration"
- Advisor: Professor Xiaoqin Zhang

Hainan Normal University, Hai'nan, Haikou, P. R. China

B.S., Information and Computing Science, GPA: 3.22 / 4.0, June, 2018

- Dissertation: "The Research on Classification Model Based on Elements of Music"
- Advisor: Associate Professor Guanglu Zhang

Publications

- 1. **Tao Wang**, Kaihao Zhang, Tianrun Shen, Wenhan Luo, Bjorn Stenger, Tong Lu, "Ultra-High-Definition Low-Light Image Enhancement: A Benchmark and Transformer-Based Method", *Proc. of the Association for the Advancement of Artificial Intelligence (AAAI)*, USA, 2023.
- Xiaoqin Zhang, Tao Wang, Jinxin Wang, Guiying Tang, Li Zhao, "Pyramid Channel-based Feature Attention Network for Image Dehazing", Computer Vision and Image Understanding, 197-198: 103003, 2020. DOI: https://doi.org/10.1016/j.cviu.2020.103003
- 3. **Tao Wang**, Xiaoqin Zhang, Runhua Jiang, Li Zhao, Huiling Chen, Wenhan Luo, "Video Deblurring via Spatiotemporal Pyramid Network and Adversarial Gradient Prior", *Computer Vision and Image Understanding*, 2020.
- 4. Xiaoqin Zhang, **Tao Wang**, Runhua Jiang, Li Zhao, "Multi-attention Convolutional Neural Network for Video Deblurring", *IEEE Transactions on Circuits and Systems for Video Technology*, 2021.
- 5. Xiaoqin Zhang, **Tao Wang**, Wenhan Luo, Pengcheng Huang, "Multi-level Fusion and Attentionguided CNN for Image Dehazing", *IEEE Transactions on Circuits and Systems for Video Technology*, 2020.
- Tao Wang, Li Zhao, Pengcheng Huang, Runhua Jiang, Xiaoqin Zhang, "Haze Concentration Adaptive Network for Image Dehazing", Neurocomputing, 2021.
- 7. Xiaoqin Zhang, Runhua Jiang, **Tao Wang**, Jinxin Wang, "Recursive Neural for Video Deblurring", *IEEE Transactions on Circuits and Systems for Video Technology*, 2019.
- 8. Xiaoqin Zhang, Runhua Jiang, **Tao Wang**, Pengcheng Huang, Li Zhao, "Attention-Based Interpolation Network for Video Deblurring", *Neurocomputing*, 2020.
- 9. Pengcheng Huang, Li Zhao, Runhua Jiang, **Tao Wang**, Xiaoqin Zhang, "Self-filtering image dehazing with self-supporting module", submitted to *Neurocomputing*, 2020.

- 10. Xiaoqin Zhang, Runhua Jiang, **Tao Wang**, Wenhan Luo, "Single Image Dehazing via Dual-Path Recurrent Network", *IEEE Transactions on Image Processing*, 2021.
- 11. Xiaoqin Zhang, Jinxin Wang, **Tao Wang**, Runhua Jiang, "Robust Feature Learning via Hierarchical Feature Alignment", *Information Sciences*, 2020.
- Manman Xu, Runhua Jiang, Tao Wang, Di Wang, Xiaoju Lu, "Structured Dictionary Learning with Block Diagonal Regularization for Image Classification", Proc. of IEEE International Conference on Big Data, 2020.

PROJECT EXPERIENCE AND PROFESSIONAL ACTIVITIES

- 1. Graduate Innovation Funds of Wenzhou University, "Video Deblurring Research based on Deep Learning", 2019, PI.
- 2. Graduate Innovation Funds of Wenzhou University, "Video Deblurring using multi-attention mechanism and Feature Fusion Strategy", 2020, PI.
- 3. Science and Technology Innovation Activity Plan for College Students of Zhejiang Province, "Image Dehazing Research Based on Pyramid Channel-based Feature Attention Network", 2020, PI.
- 4. Reviewers, TII, TCSVT, CVPR, ECCV, NeuralPS, AAAI, IJCAI.

Computer Skills

- 1. Familiar with Python, C / C++, Java, Matlab.
- 2. Familiar with TCP/IP protocol principles, and Docker container technology.
- 3. Proficient in Linux environment, familiar with Linux platform development environment set up.