YANG ZHAO Professor / Doctoral Supervisor

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Education & Work Experience

2004/09 – 2008/06	University of Science and Technology of China, Automation, Bachelor
2008/09 – 2013/06	University of Science and Technology of China, Pattern Recognition, PhD.
2013/09 – 2015/11	Peking University, Shenzhen Graduate School, China, Post Doctor
2019/01 – 2025/06	Peng Cheng Laboratory, Shenzhen, China, Part-time Researcher
2016/02 – 2023.12	Hefei University of Technology, China, Associate Professor
2023/12 – present	Hefei University of Technology (HFUT), China, Professor

Biography

Yang Zhao, male, is a Professor and Doctoral Supervisor at the School of Computer and Information, Hefei University of Technology (HFUT). He received his Bachelor's degree in 2008 and Ph.D. degree in 2013 from University of Science and Technology of China (USTC). From 2013 to 2015, he conducted postdoctoral research at Peking University (PKU) Shenzhen Graduate School. He served as an Associate Professor at the School of Computer and Information, Hefei University of Technology, from 2016 to 2023, and has been a Professor since 2023.12.

His primary research areas include video/image processing, computer vision, and artificial intelligence. In recent years, he has published over 50 papers in top-tier international journals and conferences such as TPAMI, TIP, TCSVT, and IJCV, and holds more than 20 authorized Chinese and U.S. patents. He has led multiple research projects, including three National Natural Science Foundation of China (NSFC) grants.

In terms of academic service, he serves as: Deputy Secretary-General of the Youth Working Committee, China Society of Image and Graphics (CSIG); Committee Member of the Pattern Recognition Professional Committee, Chinese Association for Artificial Intelligence (CAAI); Committee Member of the Computer Vision Professional Committee, China Computer Federation (CCF);Executive Area Chair of the Vision and Learning Young Scholars (VALSE) Workshop; Youth Editorial Board Member of the Journal of Image and Graphics; Associated Editor of The Visual Computer journal; Additionally, he has served as a reviewer for multiple international journals and conferences, earning recognition as a CVPR Outstanding Reviewer and other prestigious venues. He has also chaired or served on the program committees of several academic conferences. His research group's algorithms have been adopted by leading enterprises such as Hisense, Migu and Skyworth.

Selected Publications

[1] F. Fan, **Y. Zhao***, Y. Chen, N. Li, W. Jia, R. Wang, "Local Texture Pattern Estimation for Image Detail Super-Resolution", *IEEE Transactions on Pattern Analysis and Machine Intelligence* (***TPAMI***), DOI: 10.1109/TPAMI.2025.3545571, 2025.

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[3] P. Zhao, J. Zhou, **Y. Zhao**, D. Guo, Y. Chen, Multimodal Class-aware Semantic Enhancement Network for Audio-Visual Video Parsing, *AAAI Conference on Artificial Intelligence* (***AAAI***), 2025.

[4] S. Shang, C. Zhao, R. Zhang, J. Jin, J. Zhang, R. Guo, S. Ding, Y. Wu, **Y. Zhao**, W. Jia, PVTree: Realistic and Controllable Palm Vein Generation for Recognition Tasks, *AAAI Conference on Artificial Intelligence* (***AAAI***), 2025.

[5] X. Yang, X. Chen, Y. Chen*, **Y. Zhao**, No-Reference Quality Assessment for Cartoon-Like Videos, *IEEE International Conference on Multimedia and Expo* (***ICME***), 2025.

[6] S. Diao, **Y. Zhao***, Y. Chen, W. Jia, R. Wang, Lightweight Multiplane Images Network for Real-Time Stereoscopic Conversion from Planar Video, *IEEE International Conference on Multimedia and Expo* (***ICME***), 2025.

[7] **Y. Zhao**, H. Li, Z. Zhang, Y. Chen, Q. Liu, X. Zhang, "Regional Traditional Painting Generation Based on Hierarchical and Controllable Disentanglement Model," *IEEE Transactions on Circuits and Systems for Video Technology* (***TCSVT***), vol. 34, no. 8, pp.6913-6925, 2024.

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[12] P. Duan, **Y. Zhao***, Y. Chen, W. Jia, Z. Zhang, R. Wang, "Blind Video Bit-Depth Expansion," *ACM International Conference on Multimedia* (***ACM MM***), 2024, pp. 1-9.

[13] X. Liu, **Y. Zhao***, K. Chi, Z. Zhang, Y. Chen*, W. Jia, “Towards Individual Tone Preference in Underwater Image Enhancement,” *IEEE Transactions on Geoscience and Remote Sensing* (***TGRS***), 2024.

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Authorized Patents

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[5] **Y. Zhao**, R. Wang, W. Gao, Z. Wang, W. Wang, Image super-resolution reconstruction method and device based on dictionary matching, China Patent, ZL201510741060.3, 2015.

[6] **Y. Zhao**, R. Wang, W. Gao, Z. Wang, W. Wang, Method and device for expanding image bit depth based on mixed frame, China Patent, ZL201710717259.1, 2017.

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[11] **Y. Zhao**, Y. Ma, L. Cao, W. Jia, L. Li, X. Liu, Video processing method and system, China Patent, ZL202011611610.7, 2020.12

[12] **Y. Zhao**, Y. Ma, L. Cao, W. Jia, L. Li, X. Liu, Low-quality image downsampling method and system based on attention dual-flow depth network, China Patent, ZL202010103973.3, 2020.

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[14] Y. Chen, **Y. Zhao**, L. Cao, L. Li, W. Xie, X. Liu, Training method, device, electronic equipment and storage medium for automatic coloring model of line manuscript in limited color space, China Patent, ZL202210084599.6, 2022.

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Fundings

[1] Research on key technologies of joint enhancement of sparse multi-view video visual quality, 62272142, general project of National Natural Science Foundation, under research, 2023/01-2026/12.

[2] Research on Key Technologies of Full 4K Video Visual Quality Enhancement, 61972129, a general project of National Natural Science Foundation, completed, 2020/01-2023/12.

[3] Research on super-resolution technology of image details based on local texture features, 61402018, Youth Fund of National Natural Science Foundation, completed, 2015/01-2017/12.

[4] Research and application of key technologies for intelligent extraction and generation of Regong artistic elements, 2021-GX-111, a key research and development and transformation project in Qinghai Province, under research, 2021/01-2024/12.

[5] Research on image detail super-resolution technology based on local mode, 2014M550016, supported by China Postdoctoral Science Foundation, completed, 2014/05-2015/12.

[6] Research on the key technology of video enhancement for ultra-high-definition display, A plan of cultivating outstanding young talents in Hefei University of Technology, completed, 2022/04-2024/12.

[7] Research on image super-resolution technology based on deep learning, Hefei University of Technology's academic newcomer promotion plan B, completed, 2017/01-2018/12.

[8] GPU real-time stitching technology for VR real-life acquisition, Hefei University of Technology applied scientific and technological achievements cultivation plan, completed, 2017/01-2018/12.

[9] Interactive design and software development of children's VR picture books, horizontal project of enterprises, completed, 2018/09-2019/12.

Rewards and Others

- First Prize of Teaching Achievement Award, Anhui, China, 2020.
- First Prize of Shenzhen Science and Technology Award, Shenzhen, China, 2020.
- Internet+ Innovation and Entrepreneurship Competition National Silver Award (2021), Anhui Provincial Gold Award (2019), Challenge Cup Innovation and Entrepreneurship Competition Anhui Provincial Silver Award (2022), etc.