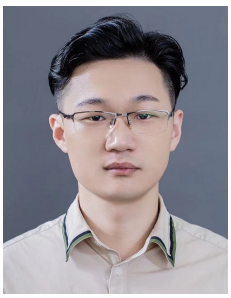
Jinbao Wang, Ph.D.

linkingring@163.com
https://github.com/jinbao-wang
Google Scholar
+86 18801286817



Introduction

Main Fields

My main fields involve computer vision and machine learning, with a long-term focus on image anomaly detection, graph feature learning, image diversification generation, and fast retrieval. We are committed to applying visual technology to the human-machine interaction environment of real industrial scenes and virtual reality.

Research Outcomes

Led the National Natural Science and Technology Foundation of China's "Efficient 3D Anomaly Detection Algorithm for Industrial Vision" (project number: 62206122); Participated in general projects such as the theory and methods of multi-modal object 3D detection and recognition based on deep learning technology; Published 17 papers in important international journals and conferences, such as TIP, TCSVT, Neurocomputing, ICCV, ACM MM, NeuroIPS, etc., with a total of 457 citations and 1 highly cited article. Currently serving as a reviewer for top international journals such as IEEE TIP and IEEE TCSVT, as well as a member and reviewer of the AAAI, IJCAI, ACM MM, ICML, and other top artificial intelligence conference procedures committees.

Employment History

2021.10 – Now

Research Assistant Professor, Department of Computer Science and Engineering, College of Engineering, Southern University of Science and Technology.

2019.10 – 2021.9

Postdoctoral Researcher, Department of Computer Science and Engineering, College of Engineering, Southern University of Science and Technology.

Education

2016.9 – 2019.7

Ph.D., University of Chinese Academy of Sciences (UCAS).
Major: Computer Applications Technology.
Topic: Computer Vision, Image Processing.
Thesis title: *Research on 3D Reconstruction for Objects in Multiview Video Sequences*.
Supervisor: Professor Ke Lu.

2013.9 – 2016.7

M.S., Beijing Union University (BUU).
Major: Computer Applications Technology.
Topic: Computer Vision, Image Processing.
Thesis title: *Research on Digital Image Dehazing*.
Supervisor: Professor Ning He.

2009.9 – 2013.7

B.S., Hebei University (HBU).
Major: Electronic Information Science and Technology.

Research Publications

Conference Proceedings, ∗ denotes Contributed Equally

1. **Guoyang Xie***, J. Wang*, Y. Huang*, *et al.*, "K-cross: K-space-aware cross-modality score for synthesized neuroimage quality assessment," in *Submitted to Medical Image Computing and Computer Assisted Intervention–MICCAI 2023*, Springer, 2023.
2. **Guoyang Xie***, J. Wang*, J. Liu*, Y. Jin, and F. Zheng, "Pushing the limits of fewshot anomaly detection in industry vision: Graphcore," in *The Eleventh International Conference on Learning Representations (ICLR)*, 2023. URL: https://openreview.net/forum?id=xzmqxHdZAw0.
3. L. Zhang, S. Zhang, **Guoyang Xie**, *et al.*, "What makes a good data augmentation for few-shot unsupervised image anomaly detection?" In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) Workshops*, Jun. 2023.
4. J. Wang*, **Guoyang Xie***, Y. Huang*, Y. Zheng, Y. Jin, and F. Zheng, "Fedmed-atl: Misaligned unpaired cross-modality neuroimage synthesis via affine transform loss," in *Proceedings of the 30th ACM International Conference on Multimedia (ACM MM)*, 2022, pp. 1522–1531.
5. **Guoyang Xie**, T. Xu, C. Isert, M. Aeberhard, S. Li, and M. Liu, "Online active calibration for a multi-lrf system," in *2015 IEEE 18th International Conference on Intelligent Transportation Systems (ITSC)*, IEEE, 2015, pp. 806–811.

Journal Articles, ∗ denotes Contributed Equally

1. **Guoyang Xie***, J. Wang*, Y. Huang*, *et al.*, "Cross-modality neuroimage synthesis: A survey," *ACM Computing Surveys (Major Revision), JCQ-Q1, IF:14.324*, vol. 48, no. 4, pp. 1–33, 2023.
2. **Guoyang Xie***, J. Wang*, J. Liu*, *et al.*, "Im-iad: Industrial image anomaly detection benchmark in manufacturing," *IEEE Transactions on Cybernetics (Major Revision), JCR-Q1, IF: 19.217*, vol. 52, no. 7, pp. 6684–6696, 2023.
3. **Guoyang Xie***, J. Wang*, G. Yu, F. Zheng, and Y. Jin, "Tiny adversarial mulit-objective oneshot neural architecture search," *Complex & Intelligent Systems (JCR-Q1), IF:6.72*, vol. 6, pp. 237–249, 2023.
4. J. Liu*, **Guoyang Xie***, J. Wang*, *et al.*, "Deep industrial image anomaly detection: A survey," *Machine Intelligence Research (Major Revision)*, vol. 20, no. 1, pp. 1–18, 2023.
5. J. Wang*, **Guoyang Xie***, Y. Huang*, *et al.*, "Fedmed-gan: Federated domain translation on unsupervised cross-modality brain image synthesis," *Neurocomputing (JCR-Q1), IF:5.719*, vol. 48, no. 1-4, pp. 107–139, 2023.
6. X. Jiang*, **Guoyang Xie***, J. Wang*, *et al.*, "A survey of visual sensory anomaly detection," 2022. arXiv: 2202.07006 [cs.CV].

Skills

Languages	Strong reading, writing and speaking competencies for English, Mandarin Chinese, Cantonese.
Coding	Python, C++, LaTeX
Misc.	Academic research, teaching, training, consultation, LaTeX typesetting and publishing.

Services

Reviewer

2020–2023 **Complex & Intelligent Systems Reviewer**

2022 **AAAI Reviewer**

2023 **ACM MM Reviewer**

TEVC Reviewer

NeurIPS Reviewer

Github Repos

IAD Survey `https://github.com/M-3LAB/awesome-industrial-anomaly-detection`

Brain-GAN Survey `https://github.com/M-3LAB/awesome-multimodal-brain-image-systhesis`