Linchao He Ph.D. (C)

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Google Scholar

Education

National Key Laboratory of Fundamental Science on Synthetic Vision, Sichuan University
Chengdu, China

Combined Master's and Ph.D. Program in Computer Science   2020 - 2026 *(expected)*

- Advisor: Associate Prof. Hu Chen and Pro. Yi Zhang
- Research area: Medical Imaging and Generative Model

College of Information Engineering, Sichuan Agricultural University   Chengdu, China

B.E. in Internet of Things (IoT) engineering   2016 - 2020

- Research area: Video Analysis and Deep Learning

Publications

1. **Linchao He**, Wenchao Du, Peixi Liao, Fenglei Fan, Hu Chen, Hongyu Yang, Yi Zhang. Solving Zero-Shot Sparse-View CT Reconstruction With Variational Score Solver. *IEEE Transactions on Medical Imaging*, 2024.

2. Hongjie Wu*, **Linchao He***, Mingqin Zhang, Dongdong Chen, Kunming Luo, Mengting Luo, Ji-Zhe Zhou, Hu Chen, Jiancheng Lv. Diffusion Posterior Proximal Sampling for Image Restoration. *ACM Multimedia*, **Oral**, 2024.

3. Haotian Tan*, **Linchao He***, Wenchao Du, Hong Liu, Hu Chen, Yi Zhang, Hongyu Yang. PRX-Change: Enhancing remote sensing change detection through progressive feature refinement and Cross-Attention interaction. *International Journal of Applied Earth Observation and Geoinformation*, 2024.

4. Mengting Luo, Nan Zhou, Tao Wang, **Linchao He**, Wang Wang, Hu Chen, Peixi Liao, Yi Zhang. Bi-Constraints Diffusion: A Conditional Diffusion Model with Degradation Guidance for Metal Artifact Reduction. *IEEE Transactions on Medical Imaging*, 2024.

5. Wenchao Du, Huanhuan Cui, **Linchao He**, Hu Chen, Yi Zhang, Hongyu Yang. Structure-aware diffusion for low-dose CT imaging. Physics in Medicine & Biology, 2024.

6. **Linchao He***, Haozhe Zhu*, Xiaodong Deng, Fei Fan, Peixi Liao, Wenchao Du, Hu Chen, Zhenhua Deng, Yi Zhang. FAM-Former: Global Transformer and Feature Aggregation Module for Knee MRI Age Estimation. *IEEE Transactions on Instrumentation and Measurement*, 2023.

7. **Linchao He**, Hongyu Yan, Mengting Luo, Kunming Luo, Wang Wang, Wenchao Du, Hu Chen, Hongyu Yang, Yi Zhang. Iterative reconstruction based on latent diffusion model for sparse data reconstruction. *Arxiv preprint*, 2023.

8. **Linchao He**, Mengting Luo, Dejun Zhang, Xiao Yang, Hu Chen, Yi Zhang. PointShuffleNet: Learning Non-Euclidean Features with Homotopy Equivalence and Mutual Information. *Arxiv preprint*, 2021.

9. Dejun Zhang, **Linchao He**, Mengting Luo, Zhanya Xu, Fazhi He. Weight asynchronous update: Improving the diversity of filters in a deep convolutional network. Computational Visual Media, 2020.

10. Dejun Zhang, **Linchao He**, Zhigang Tu, Shifu Zhang, Fei Han, Boxiong Yang. Learning motion representation for real-time spatio-temporal action localization. *Pattern Recognition*, 2020.

Projects

A study of low-dose CT imaging methods for small samples (As a researcher)
National Natural Science Foundation of China (NSFC)   2020.01 - 2023.01

Awards and Honors

- **Doctoral Innovation Scholarship**, Sichuan University   2024.11
- **Outstanding Student Award**, Sichuan University   2024.09
- **First Class Scholarship**, Sichuan University   2024.09
- **First Class Scholarship**, Sichuan University   2020.09

Skills

Languages: Chinese, English.
Programming Skills: `Python`, `Pytorch`, `Tensorflow`, `Linux`.

Academic Services

Reviewers for: *IEEE Transactions on Medical Imaging*.