

PERSONAL PROFILE

I work at the School of Computer Science and Technology, Chongqing University of Posts and Telecommunications, Chongqing, China, as an associate professor. I received the B.E. degree in Surveying and Mapping Engineering from Chongqing University in 2020 and the Ph.D. degree in Cartography and Geography Information System from Aerospace Information Research Institute, Chinese Academy of Sciences, in 2025, supervised by Lianru Gao.

I have published over 20 academic papers with more than 1,500 citations on Google Scholar, including 7 ESI Highly Cited Papers. My research interests include hyperspectral remote sensing, multi-modal remote sensing fusion, and deep learning.

EDUCATION

Chinese Academy of Sciences, Aerospace Information Research Institute 2020.09-2025.07
Ph.D. in Cartography and Geography Information System Supervisor: **Lianru Gao**
Thesis: Research on unsupervised deep learning-based hyperspectral image super-resolution reconstruction

Chongqing University, School of Civil Engineering 2016.09-2020.07
Bachelor of Engineering in Surveying and Mapping Engineering GPA Rank 1/26
Thesis: Research on deep learning based hyperspectral image super-resolution methods

POSITION

Chongqing University of Posts and Telecommunications, 2025.09-Present
School of Computer Science and Technology
Wenfeng Associate Professor Research group: **Junwei Han**

REPRESENTATIVE PAPERS

1. **Jiaxin Li**, Danfeng Hong, Lianru Gao, Jing Yao, Ke Zheng, Bing Zhang, Jocelyn Chanussot. Deep learning in multimodal remote sensing data fusion: A comprehensive review[J]. International Journal of Applied Earth Observation and Geoinformation, 2022, 112: 102926. [[Paper link](#)] [[ESI Highly Cited Papers, 521 citations](#)]
2. **Jiaxin Li**, Ke Zheng, Lianru Gao, Zhu Han, Zhi Li, Jocelyn Chanussot. Enhanced Deep Image Prior for Unsupervised Hyperspectral Image Super-resolution[J]. IEEE Transactions on Geoscience and Remote Sensing, 2025, 63, 1-18. [[Paper link](#)] [[Code](#)] [[ESI Highly Cited Papers, 79 citations](#)]
3. **Jiaxin Li**, Ke Zheng, Lianru Gao, Li Ni, Min Huang, Jocelyn Chanussot. Model-informed Multistage Unsupervised Network for Hyperspectral Image Super-resolution[J]. IEEE Transactions on Geoscience and Remote Sensing, 2024, 62, 1-17. [[Paper link](#)] [[Code](#)] [[ESI Highly Cited Papers, 150 citations](#)]
4. **Jiaxin Li**, Ke Zheng, Zhi Li, Lianru Gao, Xiuping Jia. X-shaped Interactive Autoencoders with Cross-Modality Mutual Learning for Unsupervised Hyperspectral Image Super-resolution[J]. IEEE Transactions on Geoscience and Remote Sensing, 2023, 61, 1-17. [[Paper link](#)] [[Code](#)] [[ESI Highly Cited Papers, 141 citations](#)]
5. Lianru Gao, **Jiaxin Li**, Ke Zheng, Xiuping Jia. Enhanced Autoencoders with Attention-embedded Degradation Learning for Unsupervised Hyperspectral Image Super-resolution[J]. IEEE Transactions on Geoscience and Remote Sensing, 2023, 61, 1-17. [[Paper link](#)] [[Code](#)] [[ESI Highly Cited Papers, 148 citations](#)]
6. **Jiaxin Li**, Ke Zheng, Wengu Liu, Zhi Li, Haoyang Yu, Li Ni. Model-Guided Coarse-to-Fine Fusion Network for Unsupervised Hyperspectral Image Super-Resolution[J]. IEEE Geoscience and Remote Sensing Letters, 2023, 20:1-5. [[Paper link](#)] [[Code](#)] [[ESI Highly Cited Papers, 135 citations](#)]
7. **Jiaxin Li**, Ke Zheng, Jing Yao, Lianru Gao, Danfeng Hong. Deep unsupervised blind hyperspectral and multispectral data fusion[J]. IEEE Geoscience and Remote Sensing Letters, 2022, 19: 1-5. [[Paper link](#)] [[Code](#)] [[ESI Highly Cited Papers, 181 citations](#)]

Articles

2025

1. Jin Xu, Yuanchao Su, Xu Sun, **Jiaxin Li**, Haiwei Li, Jianjian Gao. FusGAT: Graph Attention-Based Fusion Network for Unsupervised Hyperspectral Image Super-Resolution[J]. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2025, 18, 11610-11622. [\[Paper link\]](#)
2. Jia Jia, Haoyang Yu, Chengjun Wang, Ke Zheng, **Jiaxin Li**, Jiaochan Hu. Spectral-Spatial Collaborative Pretraining Framework With Multiconstraint Cooperation for Hyperspectral–Multispectral Image Fusion[J]. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2025, 18, 11610-11622. [\[Paper link\]](#)
3. Qihui Wang, Qiong Ran, Ke Zheng, **Jiaxin Li**. Spatiotemporal Fusion Algorithm Based on Multikernel Adaptive Network[J]. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2025, 18, 11941-11952. [\[Paper link\]](#)
4. Xiaotong Qi, Yang Xu, Ke Zheng, **Jiaxin Li**, Le Yu, Yuhang Zhao. A Multistage Semi-Supervised Network for Hyperspectral Super-Resolution[J]. IEEE Transactions on Geoscience and Remote Sensing, 2025, 63, 1-17. [\[Paper link\]](#)
5. **Jiaxin Li**, Ke Zheng, Lianru Gao, Zhu Han, Zhi Li, Jocelyn Chanussot. Enhanced Deep Image Prior for Unsupervised Hyperspectral Image Super-resolution[J]. IEEE Transactions on Geoscience and Remote Sensing, 2025, 63, 1-18. [\[Paper link\]](#) [\[Code\]](#) [\[ESI Highly Cited Papers\]](#)
6. Ke Zheng, Aiyu Chen, Haoyang Yu, **Jiaxin Li**, Bing Zhang. Unsupervised Pretraining Framework Guided Hyperspectral and Multispectral Image Fusion[J]. IEEE Geoscience and Remote Sensing Letters, 2025, 22, 1-5. [\[Paper link\]](#)
7. Sheng Li, Yuanchao Su, Xu Sun, **Jiaxin Li**, Boyan Li, Jianjian Gao. DMSN: A Deep Multistream Network for Hyperspectral Image Super-Resolution[J]. IEEE Geoscience and Remote Sensing Letters, 2025, 22: 1-5. [\[Paper link\]](#) [\[Code\]](#)
8. Dong Chen, Junping Zhang, **Jiaxin Li**. UNMamba: Cascaded Spatial–Spectral Mamba for Blind Hyperspectral Unmixing[J]. IEEE Geoscience and Remote Sensing Letters, 2025, 22: 1-5. [\[Paper link\]](#) [\[Code\]](#)

2024

1. **Jiaxin Li**, Ke Zheng, Lianru Gao, Li Ni, Min Huang, Jocelyn Chanussot. Model-informed Multi-stage Unsupervised Network for Hyperspectral Image Super-resolution[J]. IEEE Transactions on Geoscience and Remote Sensing, 2024, 62, 1-17. [\[Paper link\]](#) [\[Code\]](#) [\[ESI Highly Cited Papers\]](#)
2. Zhi Li, Ke Zheng, **Jiaxin Li**, Chengrui Li, Lianru Gao. Cross-Semantic Heterogeneous Modeling Network for Hyperspectral Image Classification[J]. IEEE Transactions on Geoscience and Remote Sensing, 2024, 62: 1-16. [\[Paper link\]](#)
3. Wenjuan Zhang, Ruiqi Sun, Zhen Li, Lianru Gao, **Jiaxin Li**, Bin Zhao, Bing Zhang. Non-local Similarity Based Attentive Graph Convolution Network for Remote Sensing Image Super-Resolution[J]. IEEE Transactions on Geoscience and Remote Sensing, 2024, 62: 1-16. [\[Paper link\]](#) [\[Paper link\]](#) [\[Code\]](#)
4. Qiong Ran, Qihui Wang, Ke Zheng, **Jiaxin Li**. Multiscale Attention Spatiotemporal Fusion Model Based on Pyramidal Network Constraints[J]. IEEE Geoscience and Remote Sensing Letters, 2024, 21:1-5. [\[Paper link\]](#)
5. Haoyang Yu, Zhixin Ling, Ke Zheng, Lianru Gao, **Jiaxin Li**, Jocelyn Chanussot. Unsupervised Hyperspectral and Multispectral Image Fusion With Deep Spectral-Spatial Collaborative Constraint[J]. IEEE Transactions on Geoscience and Remote Sensing, 2024, 62: 1-16. [\[Paper link\]](#) [\[Paper link\]](#)

2023

1. **Jiaxin Li**, Ke Zheng, Zhi Li, Lianru Gao, Xiuping Jia. X-shaped Interactive Autoencoders with Cross-Modality Mutual Learning for Unsupervised Hyperspectral Image Super-resolution[J]. IEEE Transactions on Geoscience and Remote Sensing, 2023, 61, 1-17. [\[Paper link\]](#) [\[Code\]](#) [\[ESI Highly Cited Papers\]](#)
2. Lianru Gao, **Jiaxin Li**, Ke Zheng, Xiuping Jia. Enhanced Autoencoders with Attention-embedded Degradation Learning for Unsupervised Hyperspectral Image Super-resolution[J]. IEEE Transactions on Geoscience and Remote Sensing, 2023, 61, 1-17. [\[Paper link\]](#) [\[Code\]](#) [\[ESI Highly Cited Papers\]](#)
3. **Jiaxin Li**, Ke Zheng, Wengu Liu, Zhi Li, Haoyang Yu, Li Ni. Model-Guided Coarse-to-Fine Fusion Network for Unsupervised Hyperspectral Image Super-Resolution[J]. IEEE Geoscience and Remote Sensing Letters, 2023, 20:1-5. [\[Paper link\]](#) [\[Code\]](#) [\[ESI Highly Cited Papers\]](#)

4. Bing Zhang, Lianru Gao, **Jiaxin Li**, Danfeng Hong, Ke Zheng. Advances and prospects in hyperspectral and multispectral remote sensing image super-resolution fusion[J]. Acta Geodaetica et Cartographica Sinica, 2023, 52(7), 1074-1089. [[Paper link](#)]
5. Minghua Wang, Danfeng Hong, Zhu Han, **Jiaxin Li**, Jing Yao, Lianru Gao, Bing Zhang, Jocelyn Chanussot. Tensor decompositions for hyperspectral data processing in remote sensing: A comprehensive review[J]. IEEE Geoscience and Remote Sensing Magazine, 2023. [[Paper link](#)] [[ESI Highly Cited Papers](#)]
6. Chunyu Zhu, Shangqi Deng, **Jiaxin Li**, Ying Zhang, Liwei Gong, Liangbo Gao, Na Ta, Shengbo Chen, Qiong Wu. Hyperspectral and multispectral remote sensing image fusion using SwinGAN with joint adaptive spatial-spectral gradient loss function[J]. International Journal of Digital Earth, 2023, 16(1): 3580-3600. [[Paper link](#)]

2022

1. **Jiaxin Li**, Danfeng Hong, Lianru Gao, Jing Yao, Ke Zheng, Bing Zhang, Jocelyn Chanussot. Deep learning in multimodal remote sensing data fusion: A comprehensive review[J]. International Journal of Applied Earth Observation and Geoinformation, 2022, 112: 102926. [[Paper link](#)] [[ESI Highly Cited Papers](#)]
2. **Jiaxin Li**, Ke Zheng, Jing Yao, Lianru Gao, Danfeng Hong. Deep unsupervised blind hyperspectral and multispectral data fusion[J]. IEEE Geoscience and Remote Sensing Letters, 2022, 19: 1-5. [[Paper link](#)] [[Code](#)] [[ESI Highly Cited Papers](#)]

Conference

2023

1. **Jiaxin Li**, Ke Zheng, Ni L, Lianru Gao. A New Unsupervised Network for Hyperspectral and Multispectral Image Fusion[C]. 2023 13th Workshop on Hyperspectral Imaging and Signal Processing: Evolution in Remote Sensing (WHISPERS). IEEE, 2023: 1-5. [[Paper link](#)]
2. **Jiaxin Li**, Ke Zheng, Lianru Gao, Li Ni. Interactive Autoencoders With Degradation Constraint For Hyperspectral Super-Resolution[C]. IGARSS 2023-2023 IEEE International Geoscience and Remote Sensing Symposium. IEEE, 2023: 7447-7450. [[Paper link](#)]
3. **Jiaxin Li**, Ke Zheng, Ni L, Lianru Gao. Dual U-Nets autoencoders for unsupervised hyperspectral image super-resolution[C]. International Conference on Remote Sensing, Mapping, and Geographic Systems (RSMG 2023). SPIE, 2023, 12815: 132-137. [[Excellent PAPERS Award](#)] [[Paper link](#)]
4. Minghua Wang, Bing Zhang, **Jiaxin Li**, Longfei Ren, Jocelyn Chanussot. A Feature Fusion-Based Transformer Network for Hyperspectral Super-Resolution[C]. 2023 13th Workshop on Hyperspectral Imaging and Signal Processing: Evolution in Remote Sensing (WHISPERS). IEEE, 2023: 1-5. [[Paper link](#)]
5. Haoyang Yu, Zhixin Ling, Ke Zheng, **Jiaxin Li**, Siqi Liang, Lianru Gao. Unsupervised Dynamic Convolutional Neural Network Model for Hyperspectral and Multispectral Image Fusion[C]//IGARSS 2023-2023 IEEE International Geoscience and Remote Sensing Symposium. IEEE, 2023: 6270-6273. [[Paper link](#)]

EDITORIAL ACTIVITY

Youth Editorial Board Member

[GIScience](#), 2025.07-2027.07

Guest Editor: Recent Advances in Hyperspectral Remote Sensing

[Remote Sensing](#), 2024.06-2025.01

ACADEMIC ACTIVITY

Chair: Hyperspectral Image Processing

[ICCVIT 2025](#), Baoding, China, 2025.10.31-2025.11.02

Chair: Workshop on Remote Sensing Image Processing

[MVIPIT 2025](#), Shenyang, China, 2025.9.27-2025.9.29

REVIEWER

Reviewers for various journals and conferences:

- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
- IEEE Transactions on Image Processing (TIP)
- IEEE Transactions on Geoscience and Remote Sensing (TGRS)
- IEEE Transactions on Cybernetics (TCYB)
- IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)

- Engineering Applications of Artificial Intelligence (EAAI)
- IEEE Transactions on Multimedia (TMM)
- IEEE Transactions on Instrumentation & Measurement (TIM)
- Information Fusion (IF)
- International Journal of Computer Vision (IJCV)
- IEEE Signal Processing Letters (SPL)
- Knowledge-Based Systems (KBS)
- Transactions on Audio, Speech and Language Processing (TASL)

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AWARDS AND HONORS

Outstanding graduates from ordinary higher education institutions in Beijing	2025.06
Zhu Liyuehua Outstanding Doctoral Scholarship	2024.12
President Scholarship for Postgraduate Students	2024.07
National Scholarship for Doctoral Students in 2023	2023.12
National Scholarship in 2019	2019.11
National Scholarship in 2018	2018.11
National Scholarship in 2017	2017.11