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教育经历

- **武汉大学** 湖北武汉
  测绘学院：摄影测量与遥感专业，跨校保研，硕博连读在读 **导师：袁强强、张良培教授** *2018.09 - 2024.06*
- **西南交通大学** 四川成都
  地球科学与环境工程学院：遥感科学与技术专业，工学学士 *2014.09 - 2018.06*

研究方向

- **遥感图像处理**: 多光谱图像处理，高光谱图像处理，遥感影像质量改善
- **计算机视觉**: 图像超分辨率，图像融合，底层视觉处理任务
- **人工智能**: 深度学习，变分优化

期刊论文(14篇)

一作论文(8篇)：

- **SCI Q1 TOP, IF=17.564**: **J. He,** Q. Yuan*, J. Li*, Y. Xiao, D. Liu, H. Shen, and L. Zhang, "Spectral super-resolution meets deep learning: achievements and challenges," *Information Fusion*, in press, 2023.
- **SCI Q1 TOP, IF=17.564**: **J. He,** Q. Yuan*, J. Li*, and L. Zhang, "PoNet: A universal physical optimization-based spectral super-resolution network for arbitrary multispectral images," *Information Fusion*, vol. 80, pp. 205-225, 2022.
- **SCI Q1 TOP, CCF B类, IF=8.125**: **J. He,** Q. Yuan*, J. Li, and L. Zhang, "A Knowledge Optimization-driven Network with Normalizer-Free Group ResNet Prior for Remote Sensing Image Pansharpening," *IEEE Transactions on Geoscience and Remote Sensing*, vol. 60, pp. 1-16, 2022, Art no. 5410716.
- **SCI Q1 TOP, CCF B类, IF=14.255**: **J. He,** J. Li*, Q. Yuan*, H. Shen, and L. Zhang, "Spectral Response Function-Guided Deep Optimization-Driven Network for Spectral Super-Resolution," *IEEE Transactions on Neural Networks and Learning Systems*, vol. 33, no. 9, pp. 4213-4227, 2022.
- **SCI Q1 TOP, IF=7.672**: **J. He,** Q. Yuan, J. Li*, Y. Xiao, X. Liu, and Y. Zou, "DsTer: A dense spectral transformer for remote sensing spectral super-resolution," *International Journal of Applied Earth Observation and Geoinformation*, vol. 109, pp. 102773, 2022.
- **SCI Q2, IF=4.848**: **J. He,** J. Li*, Q. Yuan, H. Li, and H. Shen, "Spatial-spectral Fusion in Different Swath Widths by a Recurrent Expanding Residual Convolutional Neural Network," *Remote Sensing*, vol. 11, no. 19, 2203, 2019.
- **EI, 北大核心**: **何江,** 李杰, 袁强强*. 面向多光谱卫星成像的广义光谱超分辨率. 光子学报, vol. 52, no. 2, pp. 0210002, 2023.
- **EI, 北大核心, 邀稿综述, 学生一作**: 张良培*, **何江,** 杨倩倩, 肖屹, 袁强强*. 数据驱动的多源遥感信息融合研究进展. 测绘学报, vol. 51, no. 7, pp. 1317-1337, 2022.

合作论文(6篇)：

- **SCI Q1 TOP, IF=17.564**: Y. Xiao, Q. Yuan, K. Jiang, **J. He,** Y. Wang, and L. Zhang, "From degrade to upgrade: Learning a self-supervised degradation guided adaptive network for blind remote sensing image super-resolution," *Information Fusion*, vol. 96, pp. 297–311, 2023.
- **SCI Q2, IF=5.343, 学生二作**: X. Jin, **J. He,** Y. Xiao and Q. Yuan, "Learning a Local-Global Alignment Network for Satellite Video Super-Resolution," *IEEE Geoscience and Remote Sensing Letters*, in press, 2023.
- **SCI Q1 TOP, IF=17.564**: D. Liu, J. Li, Q. Yuan, L. Zheng, **J. He,** S. Zhao, and Y. Xiao, "An efficient unfolding network with disentangled spatial-spectral representation for hyperspectral image super-resolution," *Information Fusion*, vol. 94, pp. 92–111, 2023.
- **SCI Q1 TOP, IF=13.93, 合作综述, 唯一学生**: L.-J. Deng, G. Vivone*, M. E. Paoletti, G. Scarpa, **J. He,** Y. Zhang, J. Chanussot, and A. Plaza, "Machine Learning in Pansharpening: A Benchmark, From Shallow to Deep Networks," *IEEE Geoscience and Remote Sensing Magazine*, vol. 10, no. 3, pp. 279-315, 2022.

- **SCI Q1 TOP, IF=7.672, 学生二作, ESI高被引论文**: Y. Xiao, Q. Yuan*, **J. He,** Q. Zhang, J. Sun, X. Su, J. Wu, and L. Zhang, "Space-time super-resolution for satellite video: A joint framework based on multi-scale spatial-temporal transformer," *International Journal of Applied Earth Observation and Geoinformation*, vol. 108, pp. 102731, 2022.
- **SCI Q1 TOP, IF=10.75**: Y. Xiao, Y. Wang, Q. Yuan*, **J. He,** and L. Zhang, "Generating a long-term (2003-2020) hourly 0.25° global PM2.5 dataset via spatiotemporal downscaling of CAMS with deep learning (DeepCAMS)," *Science of The Total Environment*, vol. 848, pp. 157747, 2022.

会议论文(4篇)

- **EI, Oral**: S. Wang, Y. Tang, X. Liao, **J. He,** and etal., "An Ensemble Learning Approach with Multi-depth Attention Mechanism for Road Damage Detection," *2022 IEEE International Conference on Big Data*, pp. 6439-6444, 2022.
- **CVPR Workshop**: B. Arad, R. Timofte, R. Yahel, N. Morag, A. Bernat, others, **J. He,** and others, "NTIRE 2022 Spectral Recovery Challenge and Dataset," *Proceeding of the IEEE/CVF Conference on Computer Vision and Pattern Recognition Workshops*, 2022.
- **EI, 学生二作**: J. Gao, J. Li*, Q. Yuan*, **J. He,** X. Su, "Self-supervised Hyperspectral and Multispectral Image Fusion in Deep Neural Network," *International Conference on Image and Graphics*, 425-436, 2021.
- **EI, Oral**: **J. He,** J. Li* and Q. Yuan, "Data-Driven and Model-Driven Spectral Superresolution Algorithms: Combination, Analysis and Application for Classification," *Proceeding of the IEEE International Geoscience and Remote Sensing Symposium*, in Hawaii, USA, pp. 2667-2670, 2020.

科研项目

国家自然科学基金-优青项目(遥感信息处理与应用) (2020.01-2022.12)
- 担任技术骨干，主研高光谱图像光谱重建算法部分

国家自然科学基金-面上项目(耦合变分模型与深度先验的视频遥感图像空谱分辨率增强方法研究) (2020.01-2023.12)
- 担任研究骨干，主研变分模型与深度先验的耦合过程并研究遥感影像光谱增强算法

国家自然科学基金-面上项目(模型驱动与数据驱动耦合的高时-空-谱融合方法研究) (2020.1-2023.12)
- 担任研究骨干，主研数据与模型驱动耦合过程并对其在空谱融合中的可能进行探索

湖北省杰出青年科学基金项目(面向洪涝灾害动态监测的卫星视频数据超分辨率重建) (2020.01-2022.12)
- 担任技术骨干，主研光谱超分辨率重建算法

国家自然科学基金青年基金项目(不同幅宽遥感影像的空-谱分辨率融合方法研究) (2018.01-2020.12)
- 担任研究骨干，主研基于深度学习的幅-空-谱一体化融合算法

荣誉奖项

- 武汉大学研究生学术创新校长奖(学院十年来首个获奖者) - 2022.10
- 武汉大学研究生英诺卓越奖学金(全校仅8人) - 2022.10
- 武汉大学"王之卓创新人才奖"特等奖(信息学部仅3人) - 2023.03
- 武汉大学研究生国家奖学金 - 2020.10
- 武汉大学"十大学术之星"入围奖 - 2022.12
- 武汉大学优秀研究生标兵 - 2022.12
- 武汉大学学业奖学金一等奖 - (2019年度; 2020年度; 2022年度)
- 武汉大学优秀研究生 - 2020.05
- 西南交通大学优秀本科毕业生 - 2018.05

学术服务

期刊审稿人：
- Information Fusion (**INFFUS**)
- ISPRS Journal of Photogrammetry and Remote Sensing (**ISPRS P&RS**)
- IEEE Transactions on Geoscience and Remote Sensing (**TGRS**)
- IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing (**J-STARS**)
- IEEE Geoscience and Remote Sensing Letters (**GRSL**)

- Computer Methods and Programs in Biomedicine (**CMPB**)
- Computer Vision and Image Understanding (**CVIU**)
- Computational Intelligence and Neuroscience (**CIN**)
- IEEE Access
- Journal of Sensors

个人陈述

何江，1996年生，四川达州人，武汉大学博士研究生。主要从事遥感图像处理，计算机视觉任务等方面的研究工作。参研多个国家自然科学基金；发表论文18篇，在INF-FUS，IEEE TNNLS，IEEE GRSM，JAG，IEEE TGRS等图像处理和遥感信息处理领域国际顶级期刊发表SCI论文共12篇(SCI一区TOP论文10篇)；多次参加国内外学术会议，发表会议论文4篇。受邀担任INF-FUS、ISPRS、IEEE TGRS等9个国际期刊的审稿人。获得过武汉大学研究生学术创新校长奖、“王之卓创新人才奖”特等奖、研究生国家奖学金、武汉大学优秀研究生标兵等多项荣誉。