

# Fengchao Xiong

☎ +86 17816856687 • ✉ fcxiong@njust.edu.cn • 🌐 www.xiongfuli.com/cv

## Education

- **Ph.D., Computer Science** **Hangzhou, China**  
*College of Computer Science, Zhejiang University*  
**Supervisor:** Prof. Yuntao Qian *2014.9-2019.10*
- **Visiting student, Computer Science** **Brisbane, Australia**  
*School of Information and Communication Technology, Griffith University*  
**Supervisor:** Dr. Jun Zhou *2017.11-2018.11*
- **B.E., Software Engineering** **Jinan, China**  
*School of Software, Shandong University* *2010.9-2014.6*
- **Exchange student, Software Engineering** **Wuhan, China**  
*International School of Software, Wuhan University* *2011.9-2012.6*

## Work Experience

**Nanjing University of Science and Technology**, Nanjing, China. 2019.10-  
Lecturer (Assistant Professor) in School of Computer Science and Engineering

## Research

- Low-rank and sparse matrix/tensor representation
- Hyperspectral imaging
- Object tracking
- Deep learning

## Publications

1. Yuntao Qian, **Fengchao Xiong**, Shan Zeng, Jun Zhou, Yuan Yan Tang. "Matrix-Vector Nonnegative Tensor Factorization for Blind Unmixing of Hyperspectral Imagery", *IEEE Transactions on Geoscience and Remote Sensing*, vol. 55, no. 3, pp. 1776-1792, 2017.
2. **Fengchao Xiong**, Yuntao Qian, Jun Zhou, Yuan Yan Tang. "Hyperspectral Unmixing via Total Variation Regularized Nonnegative Tensor Factorization", *IEEE Transactions on Geoscience and Remote Sensing*, vol. 57, no. 4, pp. 2341-2357, 2019.
3. **Fengchao Xiong**, Jun Zhou, Yuntao Qian. "Hyperspectral Restoration via  $L_0$  Gradient Regularized Low-Rank Tensor Factorization", *IEEE Transactions on Geoscience and Remote Sensing*, vol. 57, no. 12, pp. 10410-10425, 2019.
4. Yuntao Qian, **Fengchao Xiong**, Qipeng Qian, Jun Zhou. "Spectral Mixture Model Inspired Network Architectures for Hyperspectral Unmixing", *IEEE Transactions on Geoscience and Remote Sensing*, 2019. (Minor revision)
5. **Fengchao Xiong**, Jun Zhou, Yuntao Qian. "Material Based Object Tracking in Hyperspectral Videos", *IEEE Transactions on Image Processing*, vol. 29, no. 1, pp. 3719-3733, 2020.

6. **Fengchao Xiong**, Jingzhou Chen, Jun Zhou, Yuntao Qian. "Superpixel-Based Nonnegative Tensor Factorization for Hyperspectral Unmixing", *IEEE International Geoscience and Remote Sensing Symposium (IGARSS)*, 2018.
7. **Fengchao Xiong**, Jun Zhou, Yuntao Qian. "Hyperspectral Imagery Denoising via Reweighted Sparse Low-Rank Nonnegative Tensor Factorization", *IEEE International Conference on Image Processing (ICIP)*, 2018.
8. Kun Qian, Jun Zhou, **Fengchao Xiong**, Huixin Zhou, Juan Du. "Object Tracking in Hyperspectral Videos with Convolutional Features and Kernelized Correlation Filter", *International Conference on Smart Multimedia (ICSM)*, 2018.
9. Qipeng Qian, **Fengchao Xiong**, Jun Zhou. "Deep Unfolded Iterative Shrinkage-Thresholding Model for Hyperspectral Unmixing", *IEEE International Geoscience and Remote Sensing Symposium (IGARSS)*, Tokyo, 2019.
10. **Fengchao Xiong**, Jun Zhou, Yuntao Qian, Jocelyn Chanussot. "Dynamic Material-Aware Object Tracking in Hyperspectral Videos", *IEEE Workshop on Hyperspectral Image and Signal Processing: Evolution in Remote Sensing (WHISPERS)*, Amsterdam, 2019.
11. **Fengchao Xiong**, Kun Qian, Jianfeng Lu, Jun Zhou, Yuntao Qian. "Nonlocal Low-rank Nonnegative Tensor Factorization for Hyperspectral Unmixing", *IEEE International Geoscience and Remote Sensing Symposium (IGARSS)*, 2020 (Under Review).
12. Xinhai Ye, **Fengchao Xiong**, Jianfeng Lu, Haifeng Zhao, Jun Zhou. "Multi-scale Multi-level Enhanced Features for Object Detection in Optical Remote Sensing Images", *IEEE International Conference on Image Processing (ICIP)*, 2020 (Under Review).
13. Zhuanfeng Li, **Fengchao Xiong**, Jun Zhou, Jing Wang, Jianfeng Lu, Yuntao Qian. "BAE-Net: A Band Attention Aware Ensemble Network for Hyperspectral Object Tracking", *IEEE International Conference on Image Processing (ICIP)*, 2020 (Under Review).

## Professional Activities

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### Reviewer:

- IEEE Transactions on Multimedia (TMM)
- IEEE Transactions on Geoscience and Remote Sensing (TGRS)
- IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing (JSTARS)
- Pattern Recognition (PR)

**Volunteer:** The 11th IAPR International Conference on Biometrics (ICB 2018) 2018.2

## Honors and Awards

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<b>Excellent Research Assistant</b>	2018.11
<b>Excellent Graduate Student</b>	2017.9
<b>Excellent Exchange Student Scholarship</b>	2012.9
<b>Excellent Student Awards</b>	2012.9
<b>National Aspiration Scholarship</b>	2011.9
<b>Excellent Student Awards</b>	2011.9

## Referees

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- Yuntao Qian (ytqian@zju.edu.cn)
- Jun Zhou (jun.zhou@griffith.edu.au)
- Lanfen Lin (llf@zju.edu.cn)