XIAOFEI YANG

xiaofeiyang@gzhu.edu.cn | xiaofeiyang | xiaofeiyang | +86 13430940195
Address: Room 402, No. 6, Guitao 2nd Street, Nansha Street, Nansha District, Guangzhou

Personal Summary

Xiaofei Yang, Male, a lecturer at the School of Electronic and Communication Engineering, Guangzhou University. I graduated from Harbin Institute of Technology in 2019 and worked as a postdoctoral fellow at the University of Macau. My current research interests include artificial intelligence, image classification, remote sensing technology, and et al. I have published 27 papers in top international journals and conferences, 1) 11 IEEE Trans papers (the first author: 6); 2) 2 highly cited by Web of Science certification. I have presented my research results at international conferences such as IJCNN, and I currently serve as a reviewer for several IEEE Transactions.

Education

Harbin Institute of Technology — Shenzhen, China
Doctor of Engineering. Computer software and theory — *March. 2014 – October 2019*

Harbin Institute of Technology — Shenzhen, China
M. Science. Computational Mathematics — *Aug. 2011 – January 2014*

Publication

- **Journal Papers**

1. **Xiaofei Yang**, Weijia Cao, Dong Tang, Yicong Zhou, Yao Lu. "ACTN: Adaptive Coupling Transformer Network for Hyperspectral Image Classification". ***IEEE Transactions on Geoscience and Remote Sensing.*** (Accept, 2025)

2. Li, Chunshan, Wang, Mingzhi, **Xiaofei Yang**, Chu Dianhui, "DS-UNet: Dual-Stream U-Net for Oil Spill Detection of SAR Image," ***IEEE Geoscience and Remote Sensing Letters***. (JCRQ1, IF: 4.4).

3. Xianhong Zhu, Xiaohui Huang, Weijia Cao, **Xiaofei Yang**, Yunfei Zhou and Shaokai Wang, "Road Extraction from Remote Sensing Imagery with Spatial Attention Based on Swin Transformer," ***Remote Sensing***. (JCRQ1, IF:5.2).

4. Yan Li, **Xiaofei Yang**, Dong Tang, Zheng Zhou, "RDTN: Residual Densely Transformer Network for hyperspectral image classification," ***Expert Systems with Applications***. (JCRQ1, IF:7.6).

5. Chunshan Li, Yushuai Yang, **Xiaofei Yang**, Dianhui Chu, Weijia Cao, "A Novel Multi-Scale Feature Map Fusion for Oil Spill Detection of SAR Remote Sensing," ***Remote Sensing***. (JCRQ1, IF:5.2).

6. Chunshan Li, Mingyue Wang, **Xiaofei Yang**, Yifang Ban, Dianhui Chu, Zhiquan Zhou, Raymond Y.K. Lau, "QTU-Net: Quaternion Transformer-based U-Net for Water Body Extraction of RGB Satellite Image," ***IEEE Transactions on Geoscience and Remote Sensing***. (JCRQ1, IF:8.2).

7. Yunfei Zhou, Xiaohui Huang, **Xiaofei Yang**, Jiangtao Peng and Yifang Ban, "DCTN: Dual-Branch Convolutional Transformer Network With Efficient Interactive Self-Attention

for Hyperspectral Image Classification," ***IEEE Transactions on Geoscience and Remote Sensing***. (JCRQ1, IF:8.2).

8. **Xiaofei Yang**, Weijia Cao, Yao Lu, Yicong Zhou. "QTN: Quaternion Transformer Network for Hyperspectral image classification". ***IEEE Transactions on Circuits and Systems for Video Technology.*** (Accept, 2023)

9. **Xiaofei Yang**, Weijia Cao, Yao Lu, Yicong Zhou. "Self-supervised learning methods for Hyperspectral image classification". ***IEEE Transactions on Geoscience and Remote Sensing***. (JCRQ1, IF:8.2)

10. Xiaohui Huang, Yunfei Zhou, **Xiaofei Yang**, Zhu, X.; Wang, K. "SS-TMNet: Spatial–Spectral Transformer Network with Multi-Scale Convolution for Hyperspectral Image Classification". ***Remote Sens***. 2023, 15, 1206.

11. Yao Lu, Le Zhang, **Xiaofei Yang**, Yicong Zhou. "Efficient Harmonic Neural Networks with Compound Discrete Cosine Transform filters and Shared Reconstruction filters". ***IEEE Transactions on Neural Networks and Learning Systems***. Accepted, 2022. (JCRQ1, IF-7.982)

12. **Xiaofei Yang**, Weijia Cao, Yao Lu, Yicong Zhou. "Hyperspectral Image Transformer Classification Networks". ***IEEE Transactions on Geoscience and Remote Sensing***, Accepted, 2022. (JCRQ1, IF:8.2)

13. Luo Chen, Shanshan Feng, **Xiaofei Yang**, Xutao Li, Yunming Ye. "LWCDnet: A Lightweight Network for Efficient Cloud Detection in Remote Sensing Images. ***IEEE Transactions on Geoscience and Remote Sensing***, Accepted, 2022. (JCRQ1, IF:8.2)

14. Zheng Zhou, Yue Wu, **Xiaofei Yang**, Yicong Zhou . "Neural Style Transfer With Adaptive Auto-Correlation Alignment Loss. ***IEEE Signal Processing Letters***, 29 (2022): 1027-1031. (JCRQ1, IF-3.201).

15. **Xiaofei Yang**, Xutao Li, Yunming Ye, Raymond Y. K. Lau, Xiaofeng Zhang, Xiaohui Huang. "Road Detection and Centerline Extraction via Deep Recurrent Convolutional Neural Network U-Net". ***IEEE Transactions on Geoscience and Remote Sensing***, 57(9), 7209-7220, 2019. (JCRQ1, IF:8.2)

16. **Xiaofei Yang** , Yunming Ye, Xutao Li, Raymond YK Lau, Xiaofeng Zhang, and Xiaohui Huang. "Hyperspectral Image Classification With Deep Learning Models." ***IEEE Transactions on Geoscience and Remote Sensing***. (JCRQ1, IF:8.2)

17. **Xiaofei Yang**, Zhang, Xiaofeng; Ye, Yunming; Lau, Raymond Y.K., Lu, Shijian; Li, Xutao; Huang, Xiaohui. "Synergistic 2D/3D Convolutional Neural Network for Hyperspectral Image Classification". *Remote Sens*, 12(12), 2033, 2020.(JCRQ1, IF:4.848)

18. Xian Li, **Xiaofei Yang** , Xutao Li, Shijian Lu, Yunming Ye, Yifang Ban. "GCDB-UNet: A Novel Robust Cloud Detection Approach for Remote Sensing Images", *Knowledge-based Systems*, 238, 107890, 2022. (JCRQ1, IF: 8.038)

19. Zheng Yaping, Zhang Xiaofeng, Chen Shiyi, Zhang Xinni, **Xiaofei Yang**, Wang Di. "When Convolutional Network Meets Temporal Heterogeneous Graphs: An Effective Community Detection Method". ***IEEE Transactions on Knowledge and Data Engineering (TKDE)***, in press, 2021. (JCRQ1, IF: 6.977)

20. Aoran Xiao, **Xiaofei Yang**, Shijian Lua, Dayan Guana, Jiaxing Huanga. "FPS-Net: A Convolutional Fusion Network for Large-Scale LiDAR Point Cloud Segmentation". *ISPRS Journal of Photogrammetry and Remote Sensing*, 176, 237-249, 2021. (JCRQ1, IF: 8.979)

21. Xiaohui Huang, **Xiaofei Yang**, Junhui Zhao, Li yanXiong, Yunming Ye. "A New Weighting k-Means Type Clustering Framework with an l^2-Norm Regularization." *Knowledge-based Systems*, 151, 165-179, 2018. (JCRQ1, IF: 8.038)

22. Xiaohui Huang, Yunming Ye, Xiong Li, Shaokai Wang, **Xiaofei Yang**. "Clustering time-stamped data using multiple nonnegative matrices factorization." *Knowledge-based Systems*, 114, 88-98, 2016. (JCRQ1, IF: 8.038).

23. Liyan Xiong,Lei Zhang, Xiaohui Huang, **Xiaofei Yang**, Hong Tang. "DCAST: A Spatiotemporal Model with DenseNet and GRU Based on Attention Mechanism." *Mathematical Problems in Engineering*. Mathematical Problems in Engineering, 2021. (JCRQ2, IF: 1.8).

24. Linhao Luo, Liqi Yang, Ju Xin, Yixiang Fang, Xiaofeng Zhang, **Xiaofei Yang**, Kai Chen, Zhiyuan Zhang, Kai Liu. "RRCN: A Reinforced Random Convolutional Network based Reciprocal Recommendation Approach for Online Dating." CoRR abs/2011.12586, 2020.

25. Xiaohui Huang, **Xiaofei Yang**, Liyan Xiong. "A time-dependent attention convolutional LSTM method for traffic flow prediction." *Applied Intelligence*, in press, 2022.

- **Conference Papers**

1. **Xiaofei Yang**, Xutao Li, Yunming Ye, Xiaofeng Zhang, Haijun Zhang, Xiaohui Huang, Boweng Zhang. "Road Detection via Deep Residual Dense U-Net". IJCNN 2019: 1-7.(CCF-C)

2. Fei Yu, Li Z, Jiang S, **Xiaofei Yang**. Personalized POI Groups Recommendation in Location-Based Social Networks[C] // "Asia-Pacific Web (APWeb) and Web-Age Information Management (WAIM) Joint Conference on Web and Big Data". Springer, Cham, 2017: 114-123

3. Yan Li, **Xiaofei Yang**, Yunming Ye, Lunan Cui, Binfeng Jia, Zhongming Jiang, Shaokai Wang. "Detection of Oil Spill Through Fully Convolutional Network". GSKI (1) 2017: 353-362 (Corresponding Author)

Working Experience

Guangzhou University — March. 2023 – Now
Lecturer — *full-time*

University of Macau — Sept. 2021 – Feb. 2023
Postdoctoral — *full-time*

- Hyperspectral image classification based on Deep Learning

Zhuhai-UM Institute — May. 2021 – August. 2021
Trainee — *Zhuhai*

- Research on hyperspectral image classification

University of Macau — Sept. 2020 – April. 2021
Postdoctoral — *full-time*

- Research on 3D image Reconstruction

Peng Cheng Laboratory — October 2019 – Aug. 2020
Trainee — *Shenzhen*

- Proposed new open source algorithm

Teaching Experience

- CISC7015 Advanced Topics in Computer Science I: "Application of deep learning in information hiding", University of Macau Master's Program
- CISC7018 Computer Vision and Pattern Recognition, University of Macau Master's Program

Courses Available

Image Processing, Machine Learning, Algorithm Design, Data Structures; Mathematical Analysis, Numerical Analysis, Remote Sensing Calculation.

Honors and Awards

- 2019 Innovation Scholarship of Ministry of Industry and Information Technology [*1/1*]
- 2014 Outstanding Graduate Student, Harbin Institute of Technology, China

Professional Societies & Activities

• 2018 – present Peer-reviewer of scientific journals:
▷ *IEEE Transactions on Neural Networks and Learning Systems (TNNLS),*
▷ *IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING (TGRS),*
▷ *Neural Computing and Applications,*
▷ *IEEE Geoscience and Remote Sensing Letters,*
▷ *Signal Processing letter,*
▷ *Applied Intelligence,*
▷ *IEEE International Conference on Multimedia and Expo 2022,*
▷ *IEEE International Conference on Multimedia and Expo 2021.*
• *Academic report:*
▷ *" Road Detection via Deep Residual Dense U-Net ", IJCNN-2019, Hungary, 2019.06.23.,*
▷ *" Detection of Oil Spill Through Fully Convolutional Network ", GSKI-2017, Chiang Mai, Thailand, 2017.12.03.*

Research Projects

Terrain classification *Mar. 2021 – Feb. 2022*
Design the deep learning methods for hyperspectral image classification

- *Terrain classification based on Hyperspectral remote sensing images.*

Cloud detection *Sept. 2019 – Oct. 2020*

- *Cloud detection technology based on remote sensing image.*

Plant Disease Diagnosis *Mar. 2018 – Oct. 2018*
Coordinate the project R & D progress, lead the students to carry out model research and optimization, and be responsible for project algorithm design (design of deep learning model, mainly using ResNet model)

- *Intelligent System for Plant Disease Diagnosis.*

Convection Prediction based on FY-4 Satellite Data *Oct. 2018 – Oct. 2019*
Design the methods
Typhoon Path Prediction by Deep Learning *Mar. 2015 – Mar. 2016*
GPU parallel computing *Mar. 2014 – Dec. 2014*

- *Research on finite element algorithm based on GPU parallel computing.*