

## EDUCATIONS

09.2019-07.2022, Master Degree, Pattern Recognition and Intelligent System, **Wuhan University**, China. GPA: 3.51 / 4.00 Grade: 88.93 / 100

09.2015-07.2019, Bachelor Degree, Automation, **South China University of Technology**, China. GPA: 3.70 / 4.00 Grade: 86.26 / 100 Ranking: 16 / 192

## PUBLICATIONS

- **Li, R.**, Zheng, S., Duan, C., et al. (2020). Classification of Hyperspectral Image Based on Double-Branch Dual-Attention Mechanism Network. Remote Sensing, 12(3), 582. [[paper](#)], [[code](#)].  
*Proposed a Double-Branch Dual-Attention mechanism network (DBDA) for HSI classification*
- **Li, R.**, Zheng, S., Duan, C., et al. (2020). Multi-Attention-Network for Semantic Segmentation of High-Resolution Remote Sensing Images. arXiv preprint arXiv:2009.02130. [[paper](#)], [[code](#)].  
Undergoing review with the *IEEE Transactions on Image Processing (TIP)*  
*Integrate local feature maps by multi efficient attention mechanisms with linear complexity*
- **Li, R.**, Zheng, S., Duan, C., et al. (2020). Multistage Attention ResU-Net for Semantic Segmentation of Fine-Resolution Remote Sensing Images. arXiv preprint arXiv:2011.14302. [[paper](#)], [[code](#)].  
Undergoing review with the *IEEE Geoscience and Remote Sensing Letters (GRSL)*  
*Combined the Linear Attention Mechanism with ResNet to enhance the segmentation performance*
- **Li, R.**, Duan, C., & Zheng, S. (2020). MACU-Net Semantic Segmentation from High-Resolution Remote Sensing Images. arXiv preprint arXiv:2007.13083. [[paper](#)], [[code](#)].  
Undergoing review with the *IEEE Geoscience and Remote Sensing Letters (GRSL)*  
*Introduced multi-scale skip connections and asymmetric convolution blocks to U-Net*
- **Li, R.**, Zheng, S., & Duan, C. (2020). Land cover classification from remote sensing images based on multi-scale fully convolutional network. arXiv preprint arXiv:2008.00168. [[paper](#)], [[code](#)].  
Undergoing review with the *Geo-spatial Information Science (GSIS)*  
*Utilized 3D CNN for semantic segmentation from spatio-temporal satellite images*
- **Li, R.**, Duan, C., & Zheng, S. (2020). Linear Attention Mechanism: An Efficient Attention for Semantic Segmentation. arXiv preprint arXiv:2007.14902. [[paper](#)], [[code](#)].  
*Designed a Linear Attention Mechanism with  $O(n)$  time complexity and space complexity*
- **Li, R.**, Zheng, S., & Wang X. (2020)., Vision-language-action: a survey of integration of vision and language[J], *Application Research of Computers (Chinese Core Journals)*. [[paper](#)].  
*Reviewed the combination of computer vision and natural language progressing*
- Duan, C., & **Li, R.** (2020). Multi-Head Linear Attention Generative Adversarial Network for Thin

Cloud Removal. arXiv preprint arXiv:2012.10898. [[paper](#)].

Ready to submit to the *ISPRS Journal of Photogrammetry and Remote Sensing*

*Combined the Linear Attention with Generative Adversarial Networks for thin cloud removal*

- Duan, C., Pan, J., & **Li, R.** (2020). Thick Cloud Removal of Remote Sensing Images Using Temporal Smoothness and Sparsity Regularized Tensor Optimization. *Remote Sensing*, 12(20), 3446. [J]. [[paper](#)].

*Implemented a novel thick cloud removal method for remote sensing images*

## RESEARCH TOPICS

- Deep Learning for Semantic Segmentation
- Classification from Hyperspectral Image
- Attention Mechanism in Deep Learning
- Land Cover and Land Use Classification
- Cloud Removal for remote sensing images

## SKILLS

- Computer Skills - Python, C++, Matlab
- Deep Learning Framework – PyTorch
- Language - English

## AWARDS

- The National Scholarship for Postgraduates  
Ratio: 7 / 356     Date: 10.2020
- The National Encouragement Scholarship  
Ratio: 10 / 196     Date: 10.2018
- Enterprise Scholarship of Endress+Hauser  
Ratio: 3 / 51     Date: 10.2016

## INTERSHIPS

- The OPPO Co. (One of the largest mobile phone vendors in China)  
Date: 08.2018-10.2018     Position: Communications Protocol Engineer
- Zhongguan Automation (A manufacturer for 3D Scan facilities)  
Date: 06.2019-09.2019     Position: Software Engineer