Rui Li

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EDUCATIONS

09.2019-07.2021, 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

INTERNSHIPS

- 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