Jingbo Lin | Application for Ph.D

13244620921 • ljbxd180612@gmail.com • github.com/mrluin

Education

Northeast Forestry University **2018 – present**

Master, GPA: 3.65

Interest in remote sensing images processing by using machine learning and deep learning techniques.

Northeast Forestry University **2014 – 2018**

Bachelor, GPA: 3.57

Major in Computer Science and Technology.

Research Experiences

J. Lin, W. Jing, H. Song and G. Chen, "ESFNet: Efficient Network for Building Extraction From High-Resolution Aerial Images," in IEEE Access, vol. 7, pp. 54285-54294, 2019, doi: 10.1109/ACCESS.2019.2912822.:

Contribution: Idea, Experiment, Manuscript writing and revise.

Content: By using the trait of depth-wise convolution and factorized convolution, which can decompose convolution process into two phases and the filter into two part respectively, and following the principles proposed in Enet for efficient networks, this paper proposed an efficient network used in segmentation of remote sensing images, compared with other networks on the same dataset, our method achieved competitive results with much lower amount of parameters and faster inference speed.

Jingbo Lin, Weipeng Jing, Houbing Song, Guangsheng Chen. Scale-Aware Segmentation of Multiple-Scale Objects in Aerial Images. ICC 2020 Big Data Track (Accepted):

Contribution: Idea, Experiment, Manuscript writing and revise.

Content: Inspired by attention mechanism and deformable convolution, this paper proposed a Scale-Aware module allowing network better recognize multiple-scale(large, medium, small) objects in aerial images. Additionally, our method can also do well when recognizing objects with oblong shape.

Weipeng Jing, Jingbo Lin, Huihui Wang. BuildingNAS: Automatic Designation of Efficient Neural Architectures for Building Extraction in High-Resolution Aerial Images. Image and Vision Computing. (minor revision, undergoing review):

Contribution: Idea, Experiment, Manuscript writing and revise.

Content: Based on the work of AutoDeeplab, due to its high memory consumption, this paper proposed Simple Path Sampling Strategy, enabled the searching phase consume lower GPU memory than the past. Further, this paper also proposed entropy compensation onto existing objective, which benefits the searching phase and the convergence of the final architecture. The derived architecture achieved better result with more efficient design than the existing methods on the same dataset.

Mingwei Zhang, Weipeng Jing, Jingbo Lin. NAS-HRIS: Automatic Design of Neural Network for Semantic Segmentation in High-Resolution Remote Sensing Images. Sensors (SCI, Undergoing Review):

Contribution: Part of idea and program

Ji, J.; Jing, W.; Chen, G.; Lin, J.; Song, H. Multi-Label Remote Sensing Image Classification with Latent Semantic Dependencies. Remote Sens. 2020, 12, 1110.:

Contribution: Paper revise

Weipeng Jing, Mingwei Zhang, Jingbo Lin. Classification of Remote Sensing Images by Using Neural Architecture Search. Journal of Harbin University of Science and Technology:

Contribution: Part of idea and program

Honors

National Scholarship 2019

Merit Student 2015 – 2016

Language and Skills

English: TOEFL: Reading 25, Listening 25, Speaking, Writing(score will be available in recent days)

LaTeX: Grasp and Apply, meet the requirement of paper writing

Python: Grasp and Apply

Matplotlib, Numpy, Pandas: Grasp and Apply

PyTorch: Grasp and Skilled Use

git: Grasp and Apply