Aerial Semantic Segmentation using Deep Convolution Neural Network

Dat Tran, Thinh Bui

University of Engineering and Technology, VNU

We transfer the Fully Connected Neural Network[1] with pretrained VGG19 for encoder to learn the semantic segmentation end-to-end. Specifically, we implemented version fcn32s in this paper. We only used 3 color channel image (RGB) for training. Each tiles is cutted to 500 random 224 x 244 image , we use 80 percent of dataset for training and the other for validation. Our model was trained for 10 epoch on server with GPU Tesla K40m. The best validation result is about 91%.

Reference :

[1] Jonathan Long, Evan Shelhamer, Trevor Darrell: Fully Convolutional Networks for Semantic Segmentation, CVPR 2015