

# Method Description for Vaihingen: 2D Labelling Challenge

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In this work, we make use of an effective deep fully-convolutional neural network (FCN-8s) ensemble for 2D Semantic Labeling Contest of Vaihingen dataset. Downsampling part is fine-tuned from pre-trained ResNet101 model with ImageNet dataset.

Throughout this challenge, we use the IRRG images, DSM data and nDSM data (supplied by Gerke). Among 16 provided tiles with ground truths, 12 them were used for training data and the rest is for validation data. Each tile is randomly crop with a uniform distribution for 4096 times and each cropped patch is left-to-right and upside down flipped. Finally, ensemble learning is applied to infer the validation tiles with the lastest 5 models. Overall accuracy reached 88.095%.

Paper is coming soon...