

%%%

## % Purpose

%%%

The purpose of this code is to train a residual network for image steganalysis. The implementation is based on the MatConvNet platform.

%%%

## % Files

%%%

test\_resnet: this is the main function, which can be used to learn a new model to detect a given steganographic algorithm. In our implementation, **cover images and stego images are required to be paired in training and testing.**

cnn\_steganalysis\_setup\_data: the function to determine training samples and testing samples. In our implementation, '1' represents the training sample while '2' represents the testing sample.

res\_init: the function implements residual network for image steganalysis.

getBatchFn, getDagNNBatch: the function to read images from specified paths

setup: the function to setup environment for the proposed model

%%%

## % Folders

%%%

dependencies: this folder contains basic functions of constructing a CNN model with the MatConvNet platform. It contains two sub-folders, i.e. matconvnet and vlfeat. These files can be downloaded from following links:

vlfeat: <http://www.vlfeat.org/>

matconvnet: <http://www.vlfeat.org/matconvnet/>

model: the trained model will be saved in this folder.

utils: the folder contains model training function and some functions for image pre-processing