Image Style transfer

Use a pre-training model

Seven pre-training models were provided: wave.ckpt-done, mosaic.ckpt-done, cubist.ckpt-done, denoised_starry.ckpt-done, scream.ckpt-done, feathers.ckpt-done.

Take wave.ckpt-done as an example. Create a new models folder in your project, copy wave.ckpt-done into this folder, and run the command:

```
python eval.py --model_file models/wave.ckpt-done --image_file img/test.jpg
```

Successfully stylized images are written to generated/res.jpg

Train your own model

Setup:

- In the http://download.tensorflow.org/models/vgg_16_2016_08_28.tar.gz, we can download VGG16 model. We should decompress the downloaded package and then we can get a VGG16. CKPT file. Next, create a new folder pretrained in your project and copy "vgg16.ckpt" into the pretrained folder. The final file path is pretrained /vgg16.ckpt.
- Download COCO dataset in http://msvocds.blob.core.windows.net/coco2014/train2014.zip. Unpacking this data set yields a train2014 folder that should contain a large number of JPG images. Create a symbolic link to this folder in your project:

```
ln –s <Path to the "train2014" folder> train2014
```

Training "wave" model:

```
python train.py -c conf/wave.yml
```

Open the TensorBoard：

```
tensorboard --logdir models/wave/
```

The models saved during training are in the folder Models /wave/