How to use the example inpainting code in train mode

By Mike Wang

Project GitHub Link:
https://github.com/quick2063706271/generative-inpainting-pytorch-gpu

Training dataset link:
https://bbbc.broadinstitute.org/BBBC041

Pre-requisite:

- Python3
- PyTorch 1.0+
- torchvision 0.2.0+
- tensorboardX
- pyyaml (5.4.1) Important, version 5.6+ will result in additional Loader in the field of load() function. To check your pyyaml version in your terimal ***pip show pyyaml***

Steps:

⇨ **Step 1:** check if you have a GPU, if you have a GPU (with cuda) skip to Step 2. Else, change the config.yaml file from ***generative-inpainting-pytorch/configs/config.yaml*** as

```yaml
# data parameters
dataset_name: imagenet
data_with_subfolder: False
train_data_path: /Users/mikewang/Library/CloudStorage/OneDrive-JohnsHopkins/Study/Master/Semaster_1/EN.580.697/malaria_sampled/images
val_data_path:
resume:
batch_size: 48
image_shape: [1200,1600,3]
mask_shape: [128, 128]
mask_batch_same: True
max_delta_shape: [32, 32]
margin: [0, 0]
discounted_mask: True
spatial_discounting_gamma: 0.9
random_crop: True
mask_type: hole     # hole | mosaic
mosaic_unit_size: 12

# training parameters
expname: benchmark
# cuda: True
cuda: False
gpu_ids: [0, 1, 2]    # set the GPU ids to use, e.g. [0] or [1, 2]
num_workers: 4
lr: 0.0001
beta1: 0.5
beta2: 0.9
n_critic: 5
niter: 500000
print_iter: 100
viz_iter: 1000
viz_max_out: 16
snapshot_save_iter: 5000

# loss weight
coarse_l1_alpha: 1.2
l1_loss_alpha: 1.2
ae_loss_alpha: 1.2
global_wgan_loss_alpha: 1.
gan_loss_alpha: 0.001
wgan_gp_lambda: 10

# network parameters
netG:
  input_dim: 3
  ngf: 32

netD:
  input_dim: 3
  ndf: 64

```

This is to make sure that your torch is working in cpu mode.

⇨ **Step 2:** change the config.yaml file from ***generative-inpainting-pytorch/configs/config.yaml/train_data_path*** as the training malaria dataset directory

⇨ **Step 3:** change the config.yaml file from ***generative-inpainting-pytorch/configs/config.yaml/image_shape*** as [1200,1600,3]

⇨ **Step 4:** In terminal cd to the ***generative-inpainting-pytorch directory*** and then run
python train.py --config configs/config.yaml