# Instructions to use SpeechAttentionGAN

## Environment

PYTHONPATH="${PYTHONPATH}:/path/to/SpeechAttentionGAN"

pip install -r requirements.txt

## Organize data

```
SpeechAttentionGAN
        data_cache

                clean
                        train
                        test
                noisy
                        train
                        test
```

## Train

python train.py --dataroot data_cache --name <model name> --model attention_gan --dataset_mode audio --pool_size 50 --no_dropout --norm instance --lambda_A 10 --lambda_B 10 --lambda_identity 0.5 --load_size_h 128 --load_size_w 128 --crop_size 128 --preprocess resize --batch_size 4 --niter 200 --niter_decay 0 --gpu_ids 0 --display_id 0 --display_freq 100 --print_freq 100 --input_nc 1 --output_nc 1 --use_cycled_discriminators --use_mask --max_mask_len 50

## Test

python test.py --dataroot data_cache --name <model name> --model attention_gan --dataset_mode audio --norm instance --phase test --no_dropout --load_size_h 128 --load_size_w 128 --crop_size 128 --batch_size 1 --gpu_ids 0 --input_nc 1 --output_nc 1 --use_mask

**Note:**

1. Use --single_direction flag during test if you do not have noisy test data and you only have clean audio.
2. Pre-trained checkpoints can be put in the AttentionGAN folder can be directly used for testing.

3. To use phase :

1. Use the —use_phase flag
2. Use input_nc and output_nc with option 2
4. —use_mask and —use_cycled_discriminators can be used or omitted as requires