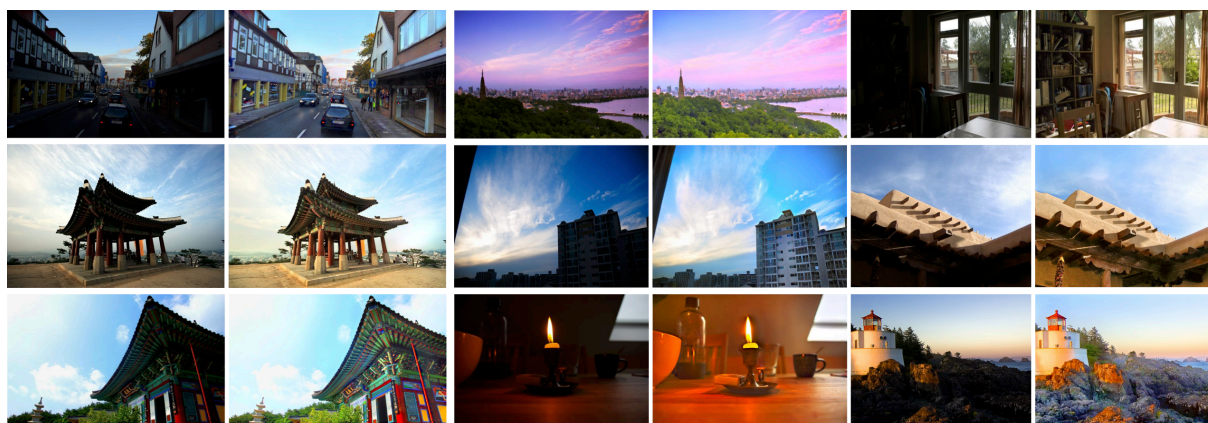

EnlightenGAN: Deep Light Enhancement without Paired Supervision

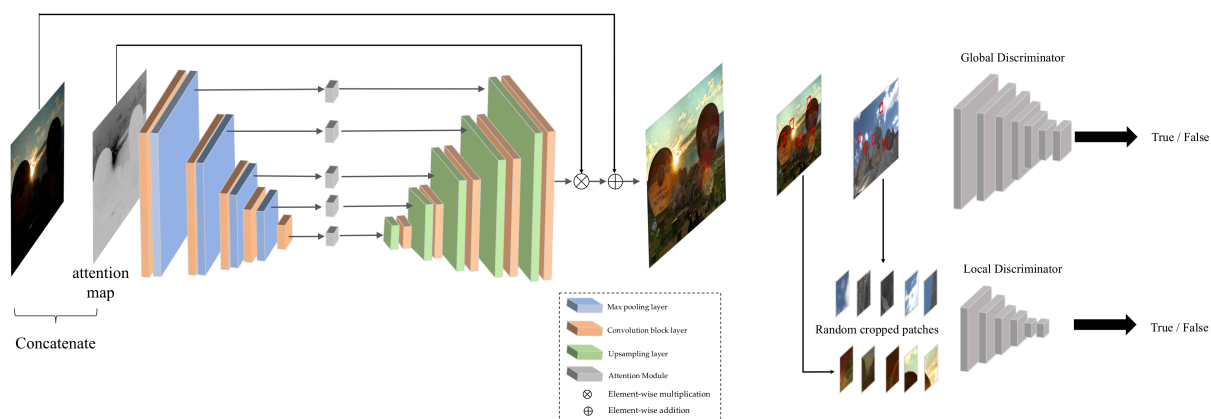
Yifan Jiang, Xinyu Gong, Ding Liu, Yu Cheng, Chen Fang, Xiaohui Shen, Jianchao Yang, Pan Zhou, Zhangyang Wang

[Paper] [Supplementary Materials]

Representative Results



Overall Architecture



Environment Preparing

```
1 python3.5
```

You should prepare at least 3 1080ti gpus or change the batch size.

`pip install -r requirement.txt mkdir model` Download VGG pretrained model from [Google Drive 1], and then put it into the directory `model`.

Training process

Before starting training process, you should launch the `visdom.server` for visualizing.

```
nohup python -m visdom.server -port=8097
```

then run the following command

```
python scripts/script.py --train
```

Testing process

Download pretrained model and put it into `./checkpoints/enlightening`

Create directories `../test_dataset/testA` and `../test_dataset/testB`. Put your test images on `../test_dataset/testA` (And you should keep whatever one image in `../test_dataset/testB` to make sure program can start.)

Run

```
python scripts/script.py --predict
```

Dataset preparing

Training data [Google Drive] (unpaired images collected from multiple datasets)

Testing data [Google Drive] (including LIME, MEF, NPE, VV, DICP)

And [BaiduYun] is available now thanks to @YHLelaine!

Faster Inference

<https://github.com/arsenyinfo/EnlightenGAN-inference> from @arsenyinfo

If you find this work useful for you, please cite

```
1 @article{jiang2021enlightengan,  
2   title={Enlightengan: Deep light enhancement without paired  
   supervision},  
3   author={Jiang, Yifan and Gong, Xinyu and Liu, Ding and Cheng, Yu and  
   Fang, Chen and Shen, Xiaohui and Yang, Jianchao and Zhou, Pan and  
   Wang, Zhangyang},
```

```
4   journal={IEEE Transactions on Image Processing},
5   volume={30},
6   pages={2340--2349},
7   year={2021},
8   publisher={IEEE}
9 }
```