

## Setup

```
pip install -r requirements.txt
```

## Run

```
python main.py
```

## Result

origin:



reconstruct:

search range 8:



search range 16:



search range 32:



three step search:



```
Runtime for search range tss: 0.122395 seconds  
search range tts PSNR: 28.75497925783219  
Runtime for search range 8: 1.092756 seconds  
search range 8 PSNR: 29.262399086300665  
Runtime for search range 16: 3.985730 seconds  
search range 16 PSNR: 29.316535732272975  
Runtime for search range 32: 14.589518 seconds  
search range 32 PSNR: 29.249355437706388
```