

a. What have you learned?

Answer:

First of all, from this task I enhanced my knowledge about using PyTorch. In addition, I have learned how denoising algorithm works and how to use a pretrained DnCNN.

b. What have you thought?

Answer:

Enhanced my understanding about how to modify/use existing code as well as implementing PyTorch NN.

c. What challenged did you face?

Answer:

Initially it took a little time to understand the code as well as get the code run in my machine. Along with this as I was running out of GPU hence need to make this code usable for non GPU machine.

d. Results:

DnCNN



PSNR vs SSIM

Results		
	PSNR	SSIM
DnCNN	27.770695626182200	0.6273774376289440
NL Mean	29.82862707145090	0.8174478823735870
BM3D	28.87552888565290	0.791970792717986

Overall, BM3D has obtained the better result because it produces good result faster. Even though DnCNN achieves better clear images with smaller sigma value, this is computationally expensive in comparison to BM3D.