

FL #3

1. Design $k \times k$ Box filter generation function.

Input : filter size (k)

Output : $k \times k$ filter kernel

2. Design image filtering (convolution) function, and apply it to the noisy image for denoising.

Input : image ($M \times N$), filter ($k \times k$)

Output : filtered image ($M \times N$)

3. Design $k \times k$ Gaussian filter generation function.

Input : Gaussian parameter, i.e., standard deviation (std) for Gaussian kernel

Output : $k \times k$ filter kernel

4. Repeat #2 using Gaussian filter.

5. Measure the MSE and PSNR for noisy and filtered images.