HW2: Problem 1 Ian Dover

1 Part A

Image converted to greyscale:



Figure 1: Greyscale image.

2 Part B

2.1 Subsection 1

Image with zero-mean Gaussian white noise with variance of 0.01:



Figure 2: J1: Greyscale image with gaussian noise applied.

2.2 Subsection 2

Image with salt-and-pepper noise, affecting approximately 5% of pixels:



Figure 3: J2: Greyscale image with salt-and-pepper noise applied.

3 Part C

3.1 Gaussian De-noise: J1

Images with gaussian filter denoise:

3.2 Gaussian De-noise: J2

3.3 Median De-noise: J1

Images with median filter denoise:



Figure 4: Gaussian filter denoised J1.



Figure 5: Gaussian filter denoised J2.



Figure 6: Median filter denoised J1.

3.4 Median De-noise: J2



Figure 7: Median filter denoised J2.