

## HW2: Problem 1

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### 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:

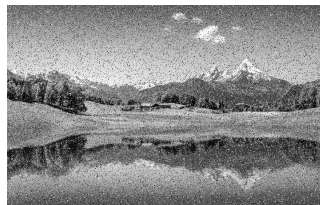


Figure 3: J2: Greyscale image with salt-and-pepper noise applied.

### 3 Part C

#### 3.1 Gaussian De-noise: J1

Images with gaussian filter denoise on J1:

#### 3.2 Gaussian De-noise: J2

Images with gaussian filter denoise on J2:



Figure 4: Gaussian filter denoised J1.



Figure 5: Gaussian filter denoised J2.

### 3.3 Median De-noise: J1

Images with median filter denoise on J1:



Figure 6: Median filter denoised J1.

### 3.4 Median De-noise: J2

Images with median filter denoise on J2:



Figure 7: Median filter denoised J2.