Lab 9: Image Restoration

Shido Nakajima

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**OBJECTIVE:** The objective of this lab is to use and understand the custom MATLAB functions that generate noise.

**METHODS:** For exercise A, the function imnoise2 was used for all of the histograms, without defining the values of a and b parameters so that the function will automatically use the default values. I then used hist(r,50) to generate the histogram of each, which were plotted on a single figure with 3x2 subplots titled (a) to (f) respectively. Since the graph initially did not seem exactly like the example, functions xlim() and ylim() were used to limit the minimum and maximum values of the axis.

For exercise B, the function imnoise3 was used for all of the graphs, with the parameters being the values specified in documentation. They were all plotted on a single figure with 3x2 subplots, each titled (a) to (f) respectively.

**RESULTS:** I was able to recreate the example figures almost the same for both A and B. However, for the histogram c in exercise A, the values were a bit off and caused the histogram limits to be slightly altered. While the example had x limit from 0 to 2.4, I had to adjust my x limit to be from 0 to 6.

**CONCLUSION:** The two custom functions allowed me to further understand how noise in images work, and how they differ between noise in spatial domain and in frequency domain.

**APPENDIX:**