CS-682 Computer Vision Deepak Kanuri(G01070295)

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I read the file and read the images in grayscale first. Applied canny operator to get the edges and again applied Sobel operator to find the edges in ‘x’ and ‘y’ direction. With that I found the phase and magnitude of the image. I built a histogram of the phase with the canny edge detector as mask.

I read the file and read the images in color secondly. Divided the image into their channels and found canny on each channel, and added the canny result of each channel. I applied Sobel operator on each channel and added the channel sobel operator result in their respective directions. With that I found the phase and magnitude of the image. I built a histogram of the phase with the canny edge detector as mask.

I also did the eigen vectors. I found the matrix by using the formulas given in the slide. I found the phase based on the eigen vectors and built histogram based on phase.