Computer Vision

Final Project

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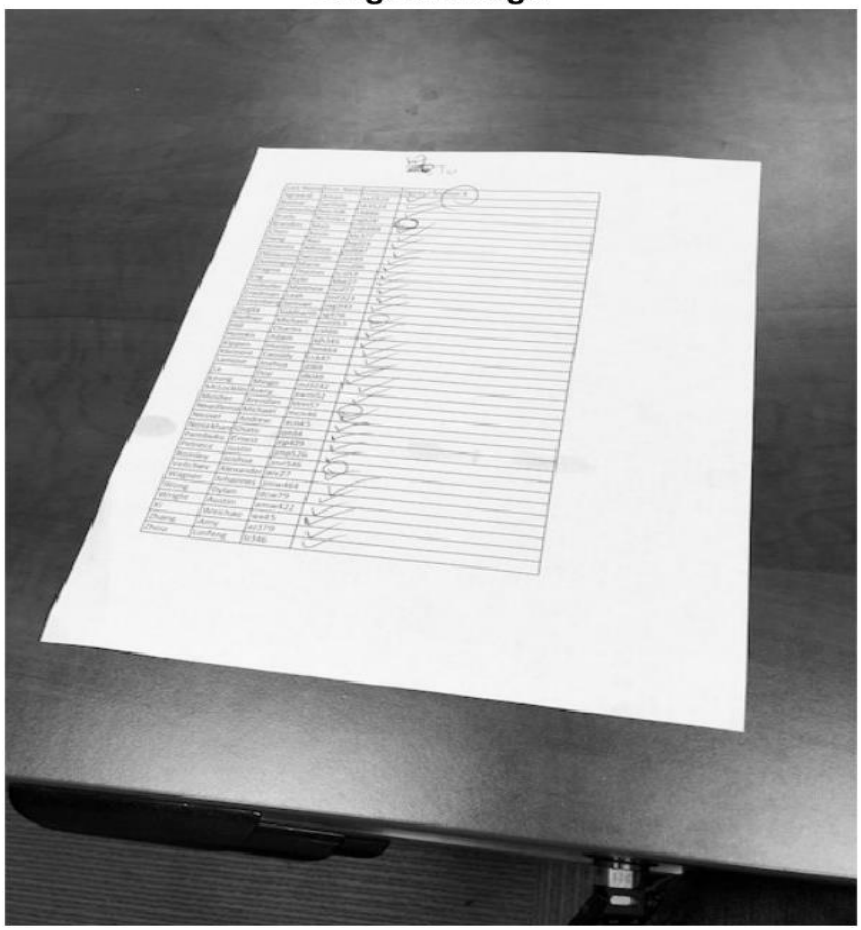
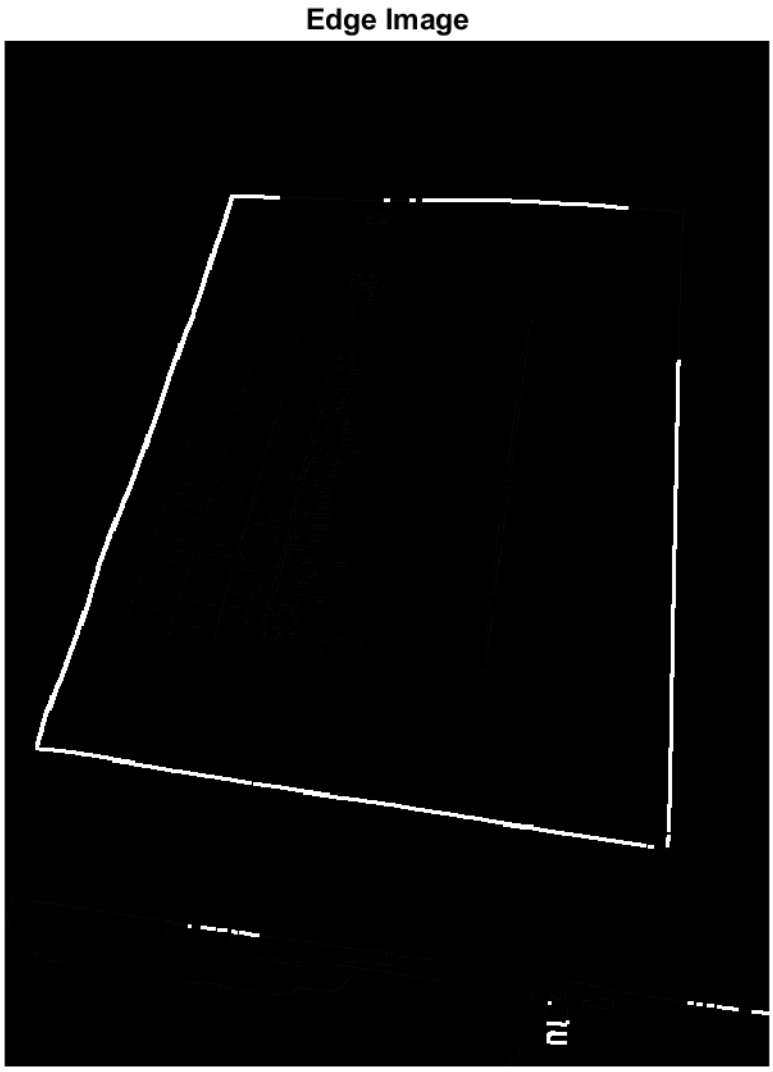
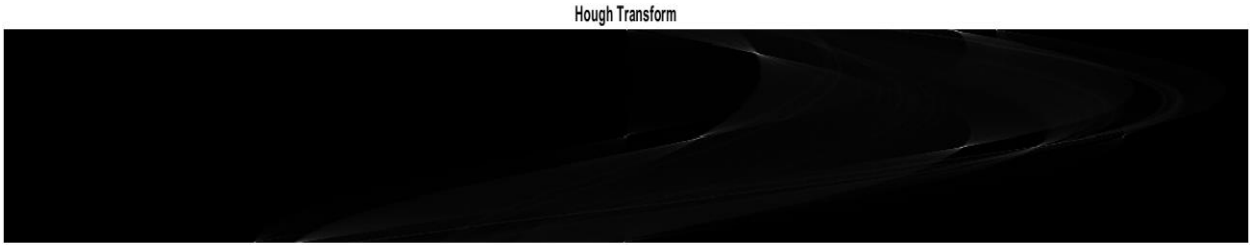
Part 1: Edge Detection

Original Image

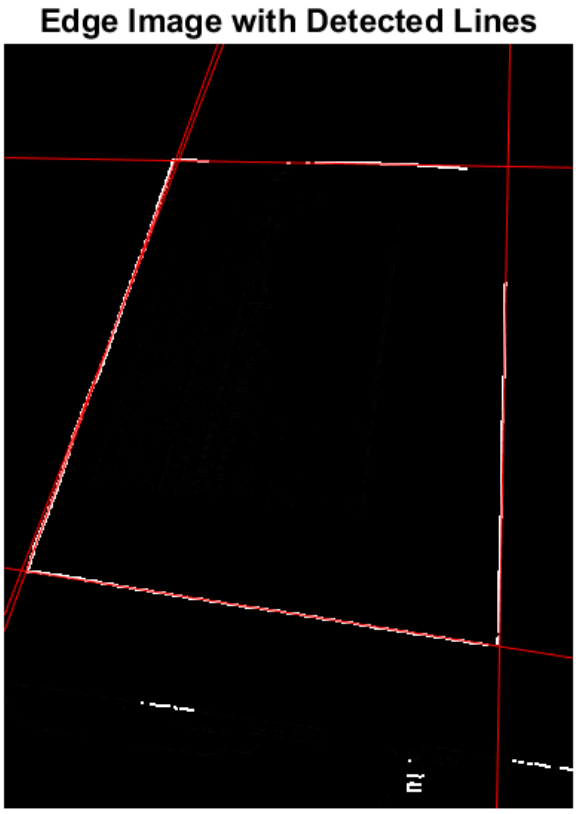




Part 2: Hough Transform for Line Detection



Part 3: Relevant Line Identification



Description:

In this part, the Hough transform maps edge points in the image space to lines in a parameter space, and by finding intersections of curves in this space, it identifies the lines. The code then selects the strongest lines and displays them on the edge image, providing a visual representation of the detected lines in the image.

Part4:

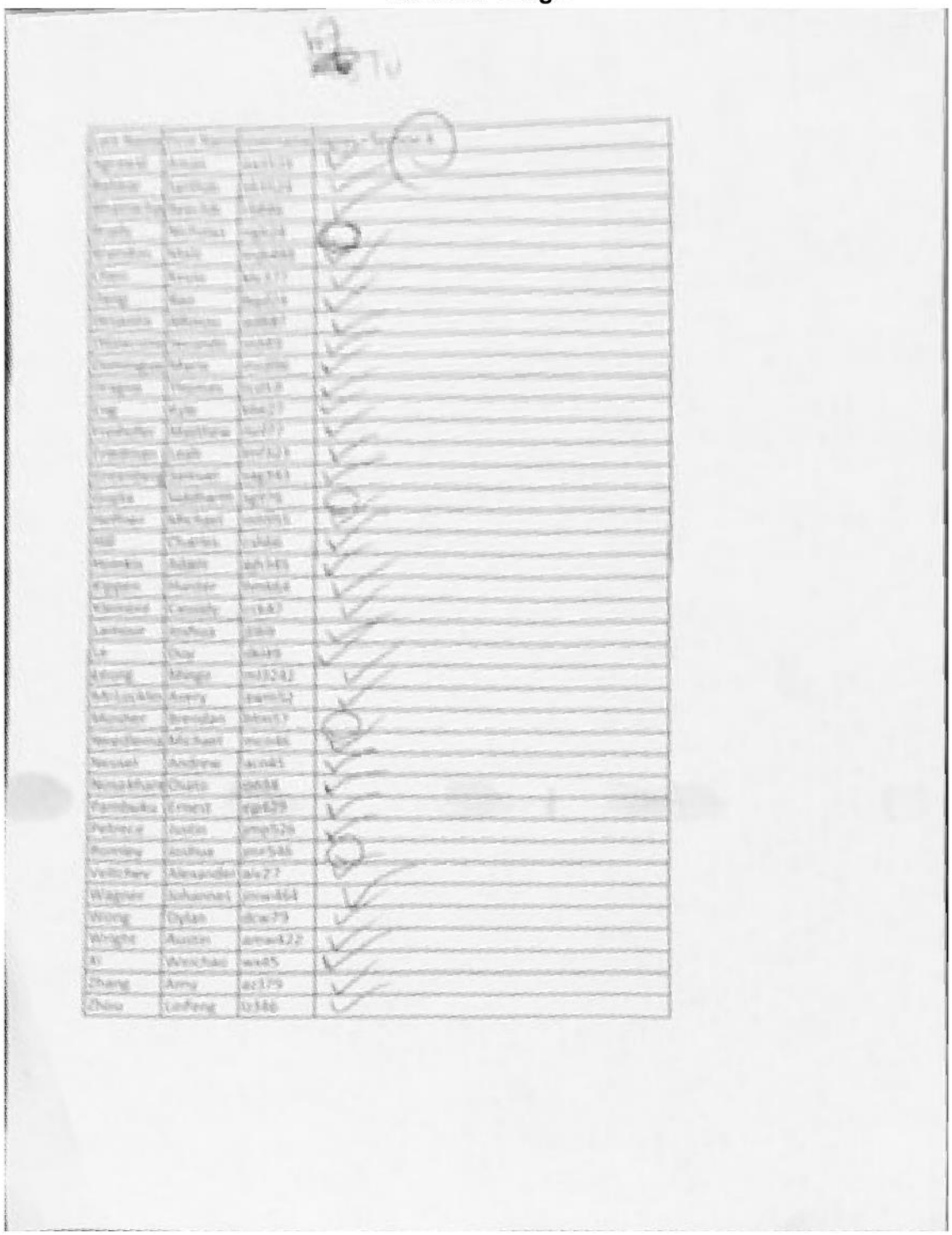
In this we have plotted the corners of the page manually.

```
paper.jpg = corners = [173, 118; 509, 131; 496, 607; 27, 530];
```

```
Paper2.jpg = corners= [295, 56; 526, 18; 582, 345; 347, 384];
```

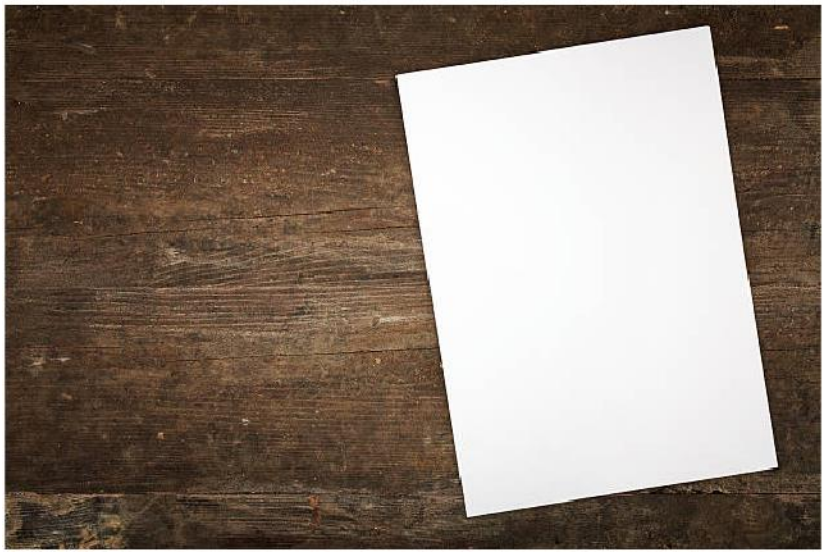
Part 5: Image Rectification

Rectified Image

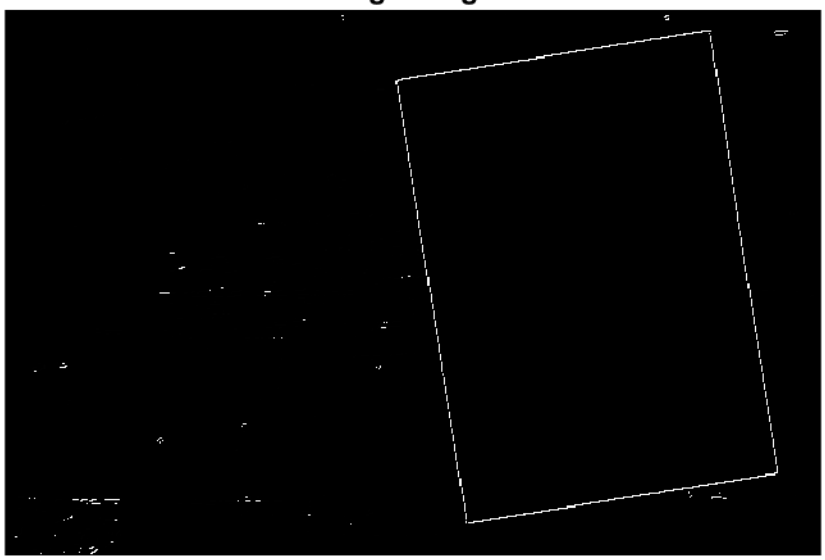


Part 6: Another Example!

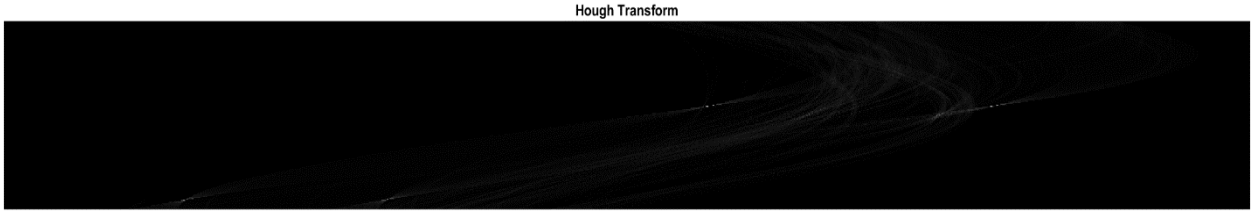
Original Image



Edge Image

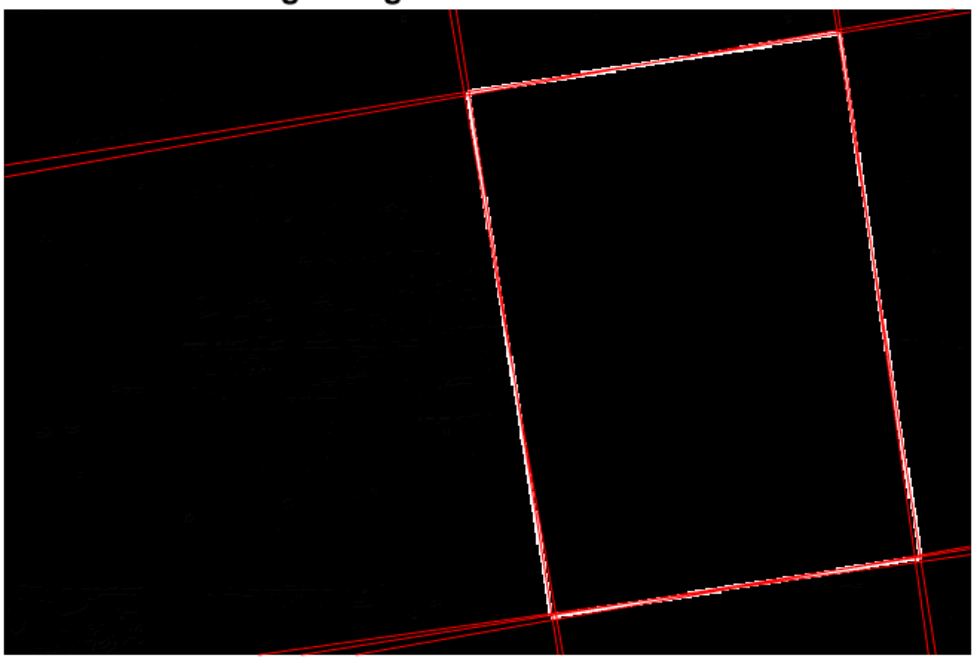


Hough Transform



Hough Transform with Local Maxima

Edge Image with Detected Lines



Rectified Image