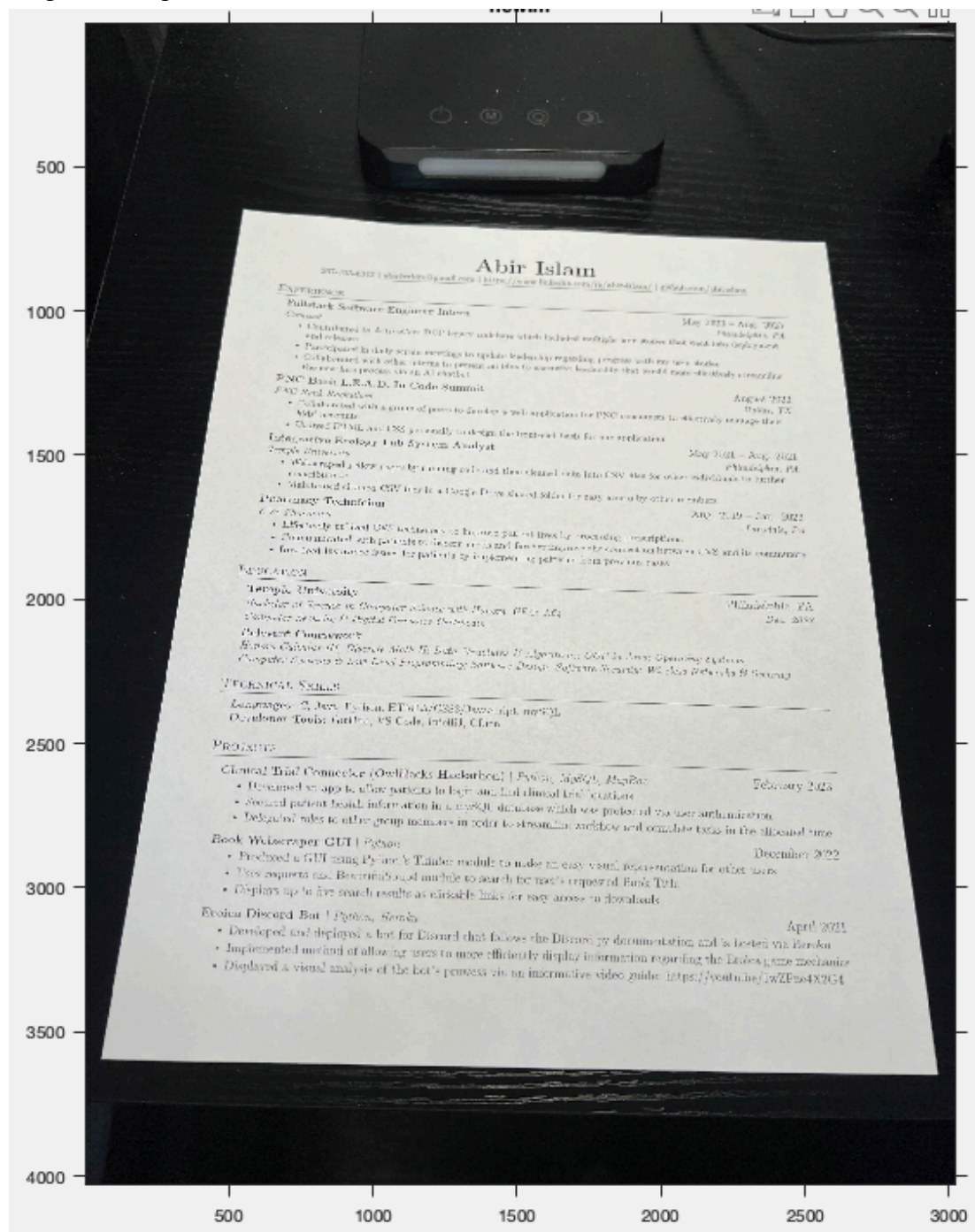
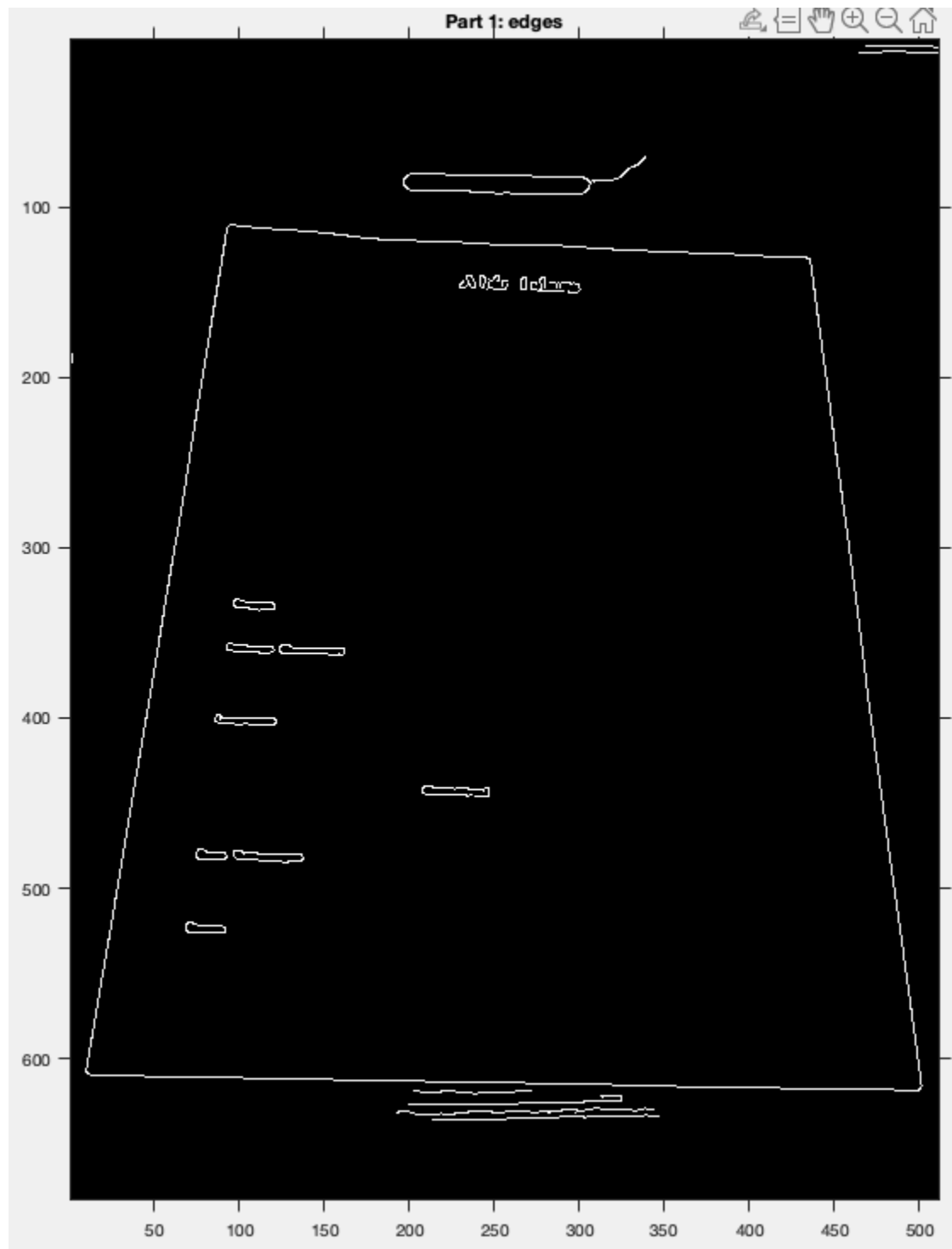


CS583 Project Report
10 December 2024
Abir Islam
Seena Soroush

Part 1: Image Prep and Detection
Original Image

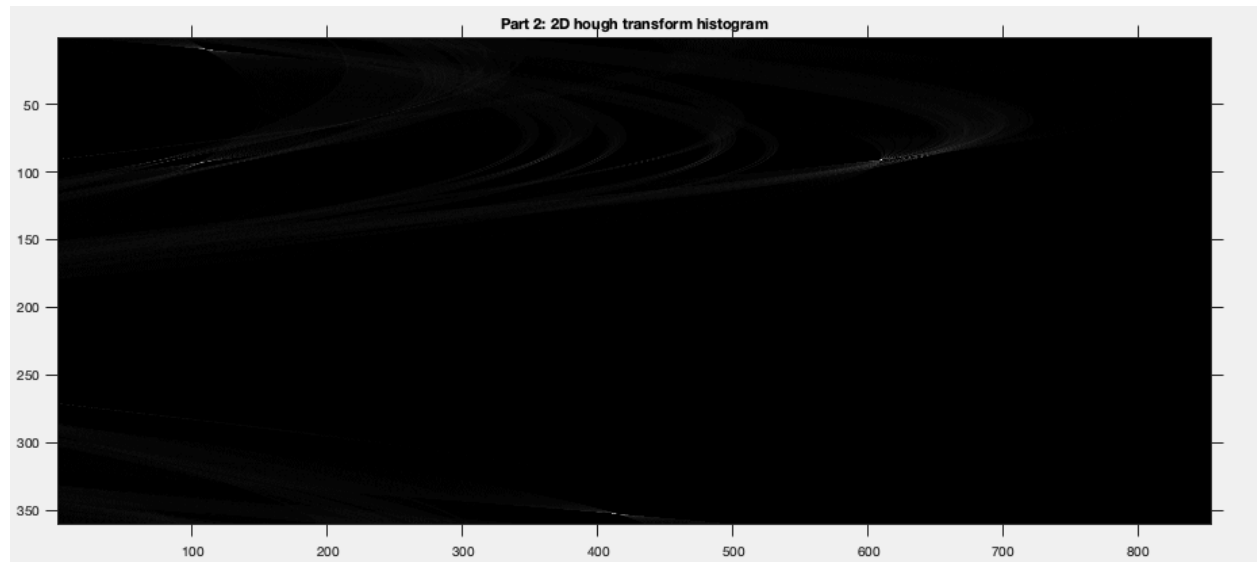


Edge Image



Part 2: Hough Transform for Line Detection

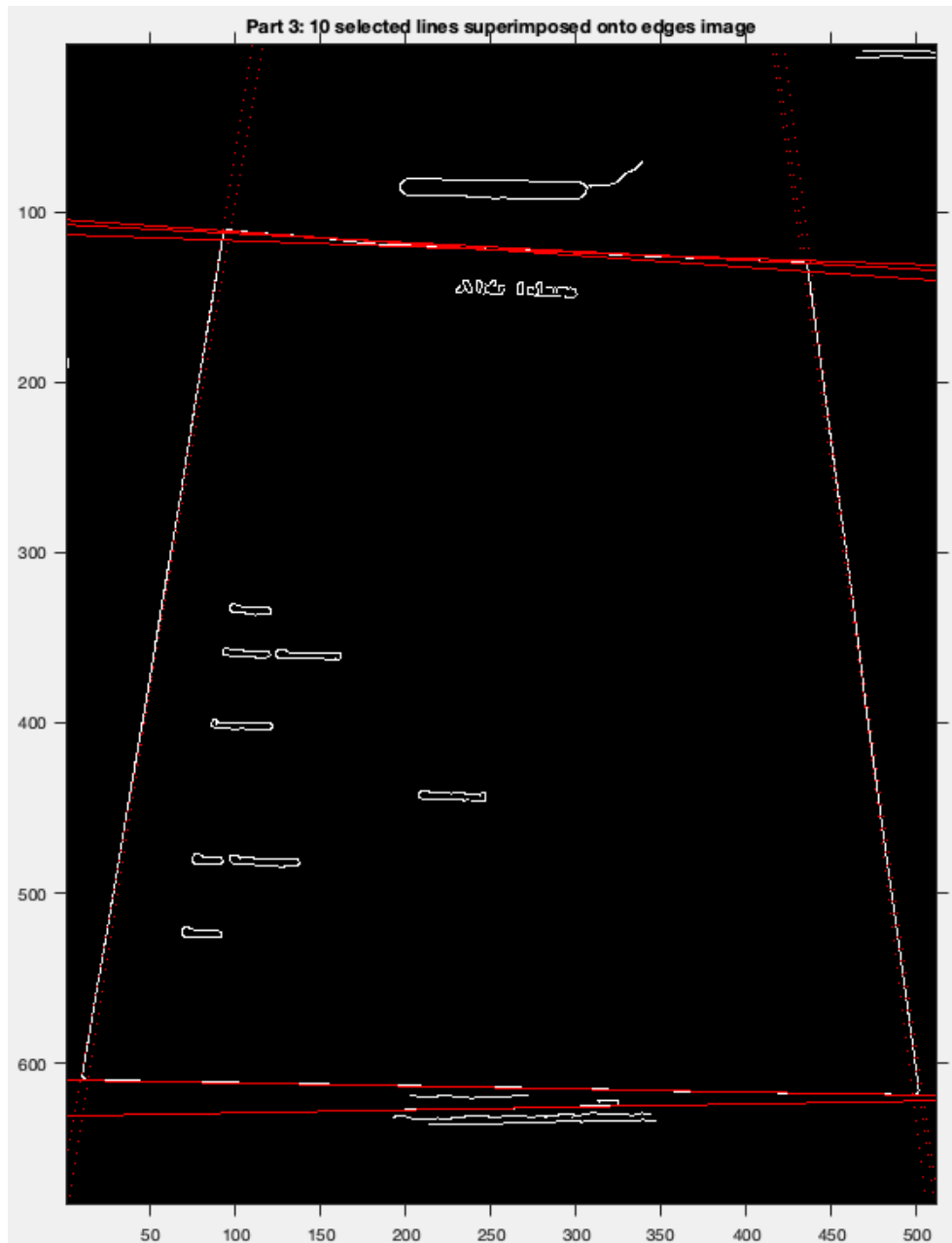
Hough Transform Candidate Lines



Part 3: Relevant Line Identification

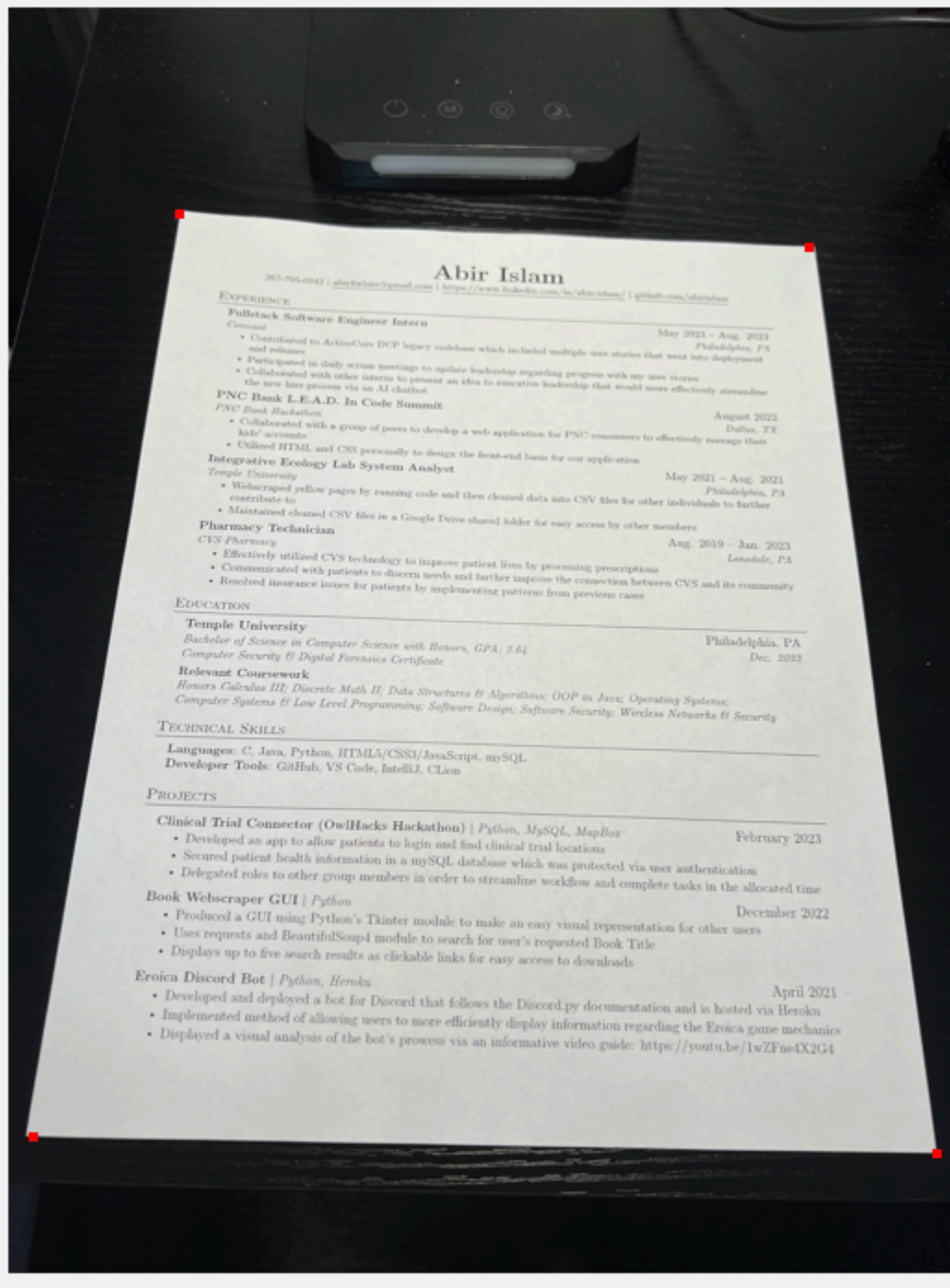
Superimposed lines on edge image

To select our potential lines, we first went through the accumulator matrix to grab the top 10 lines with the highest vote counts. We realized that it would grab multiple of the same lines, so we grouped lines that were together based on angle and distance. Then for each group, we only kept the line that had the highest vote to begin with. We then consolidated this down to 4 groups, which represent the 4 edges of the paper.



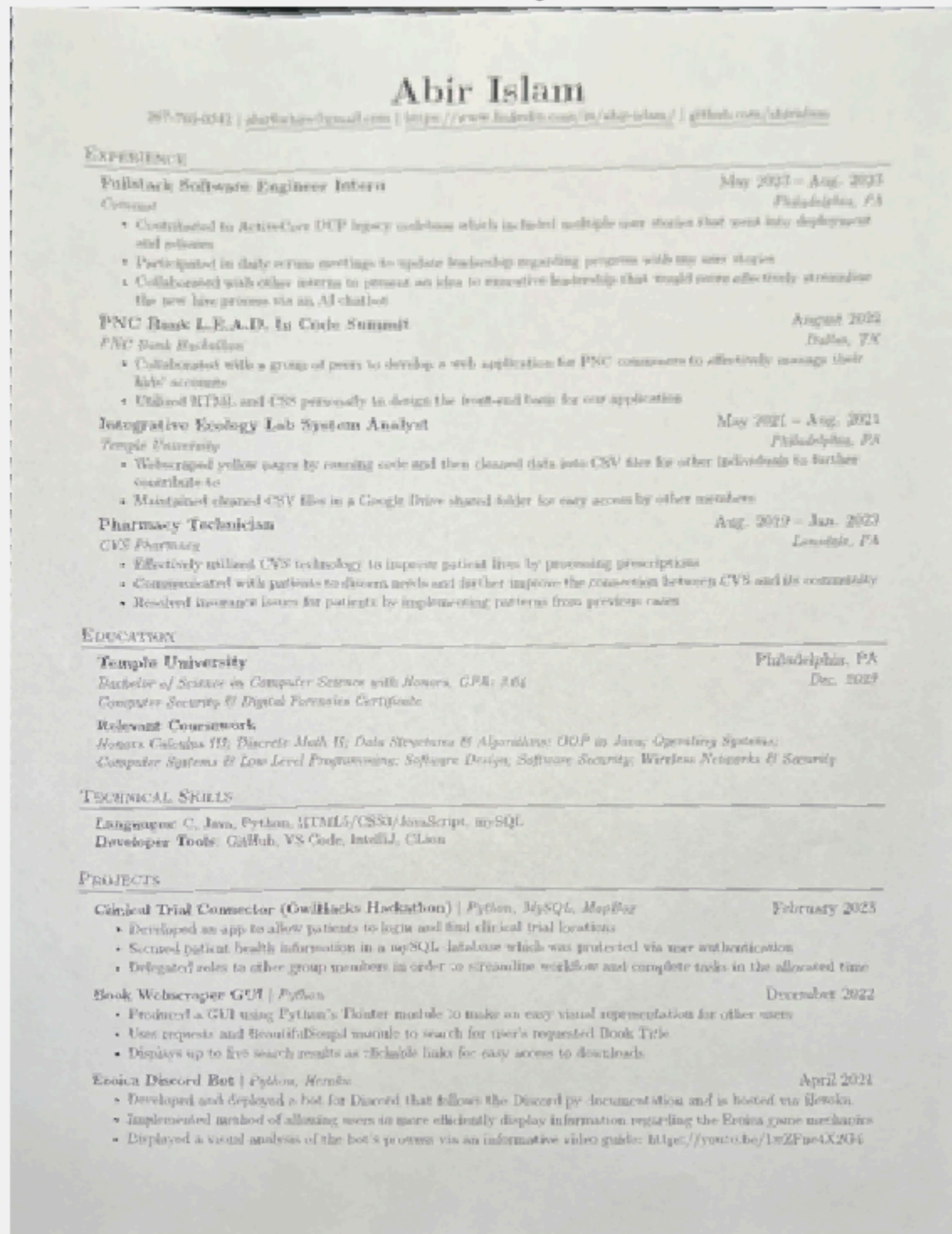
Part 4: Line Intersections

4 Corners Highlighted



Part 5: Rectification

Rectified Image

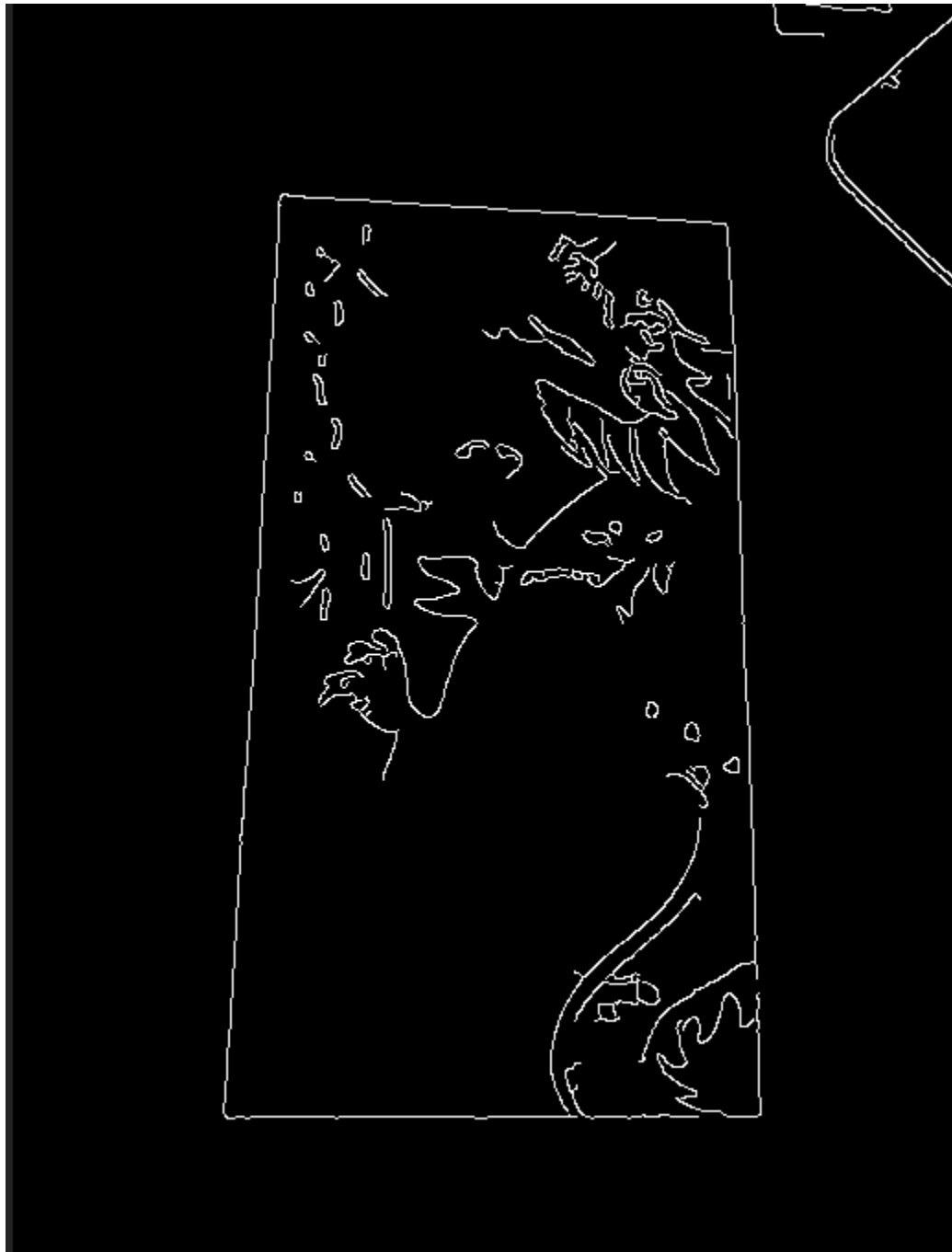


Part 6: Another Image!

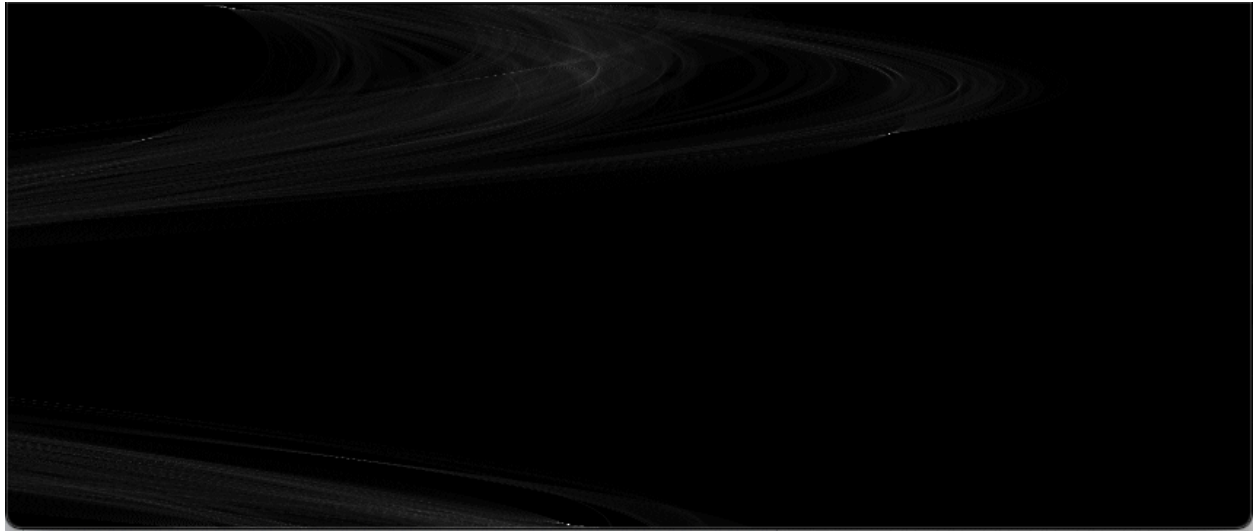
Original Image



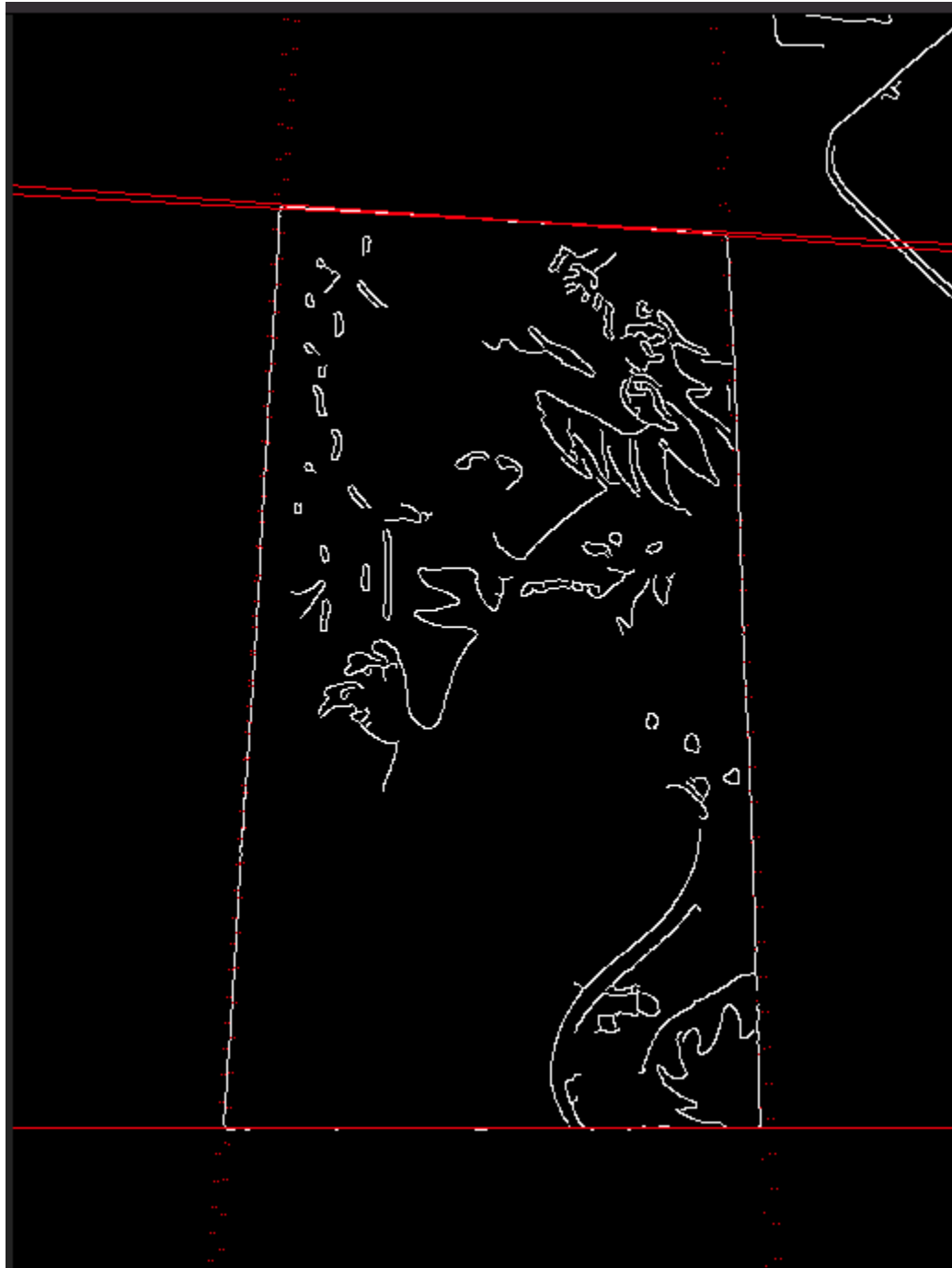
Edge Image



Hough Transform Image



Superimposed Lines on Edge Image



4 Corners Highlighted



Rectified Image

