

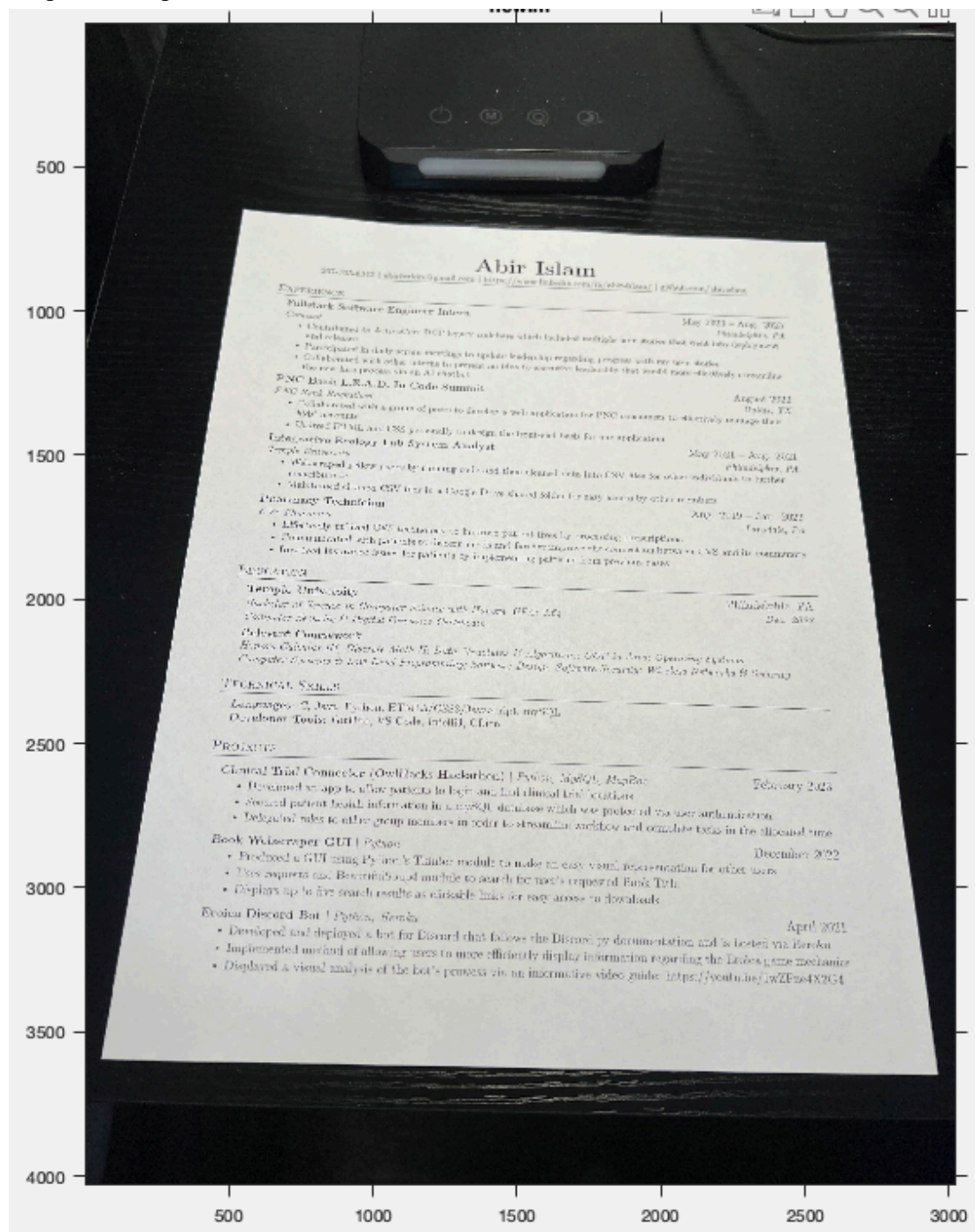
10 December 2024

Abir Islam

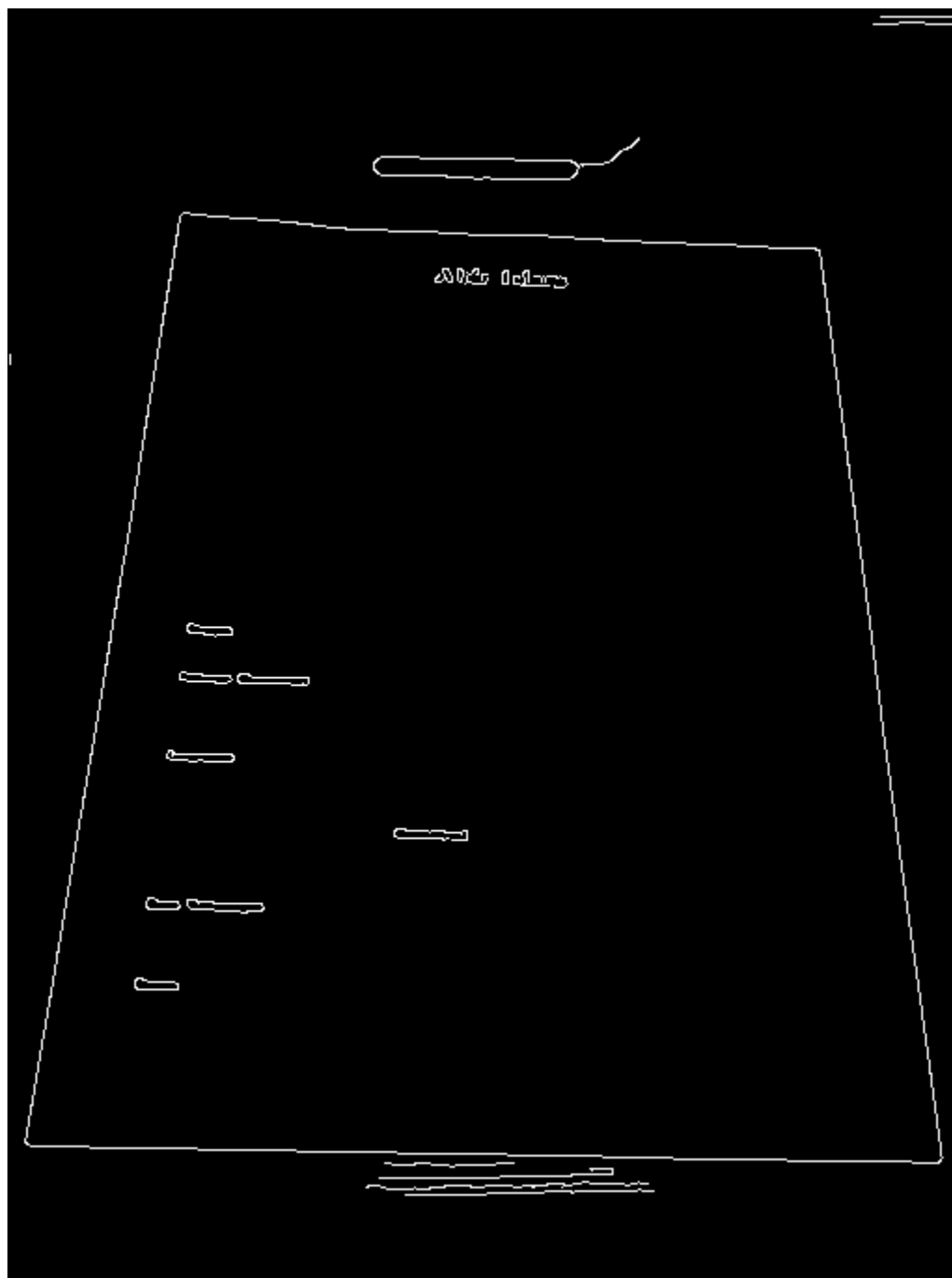
# Seena Soroush

## Part 1: Image Prep and Detection

Original Image

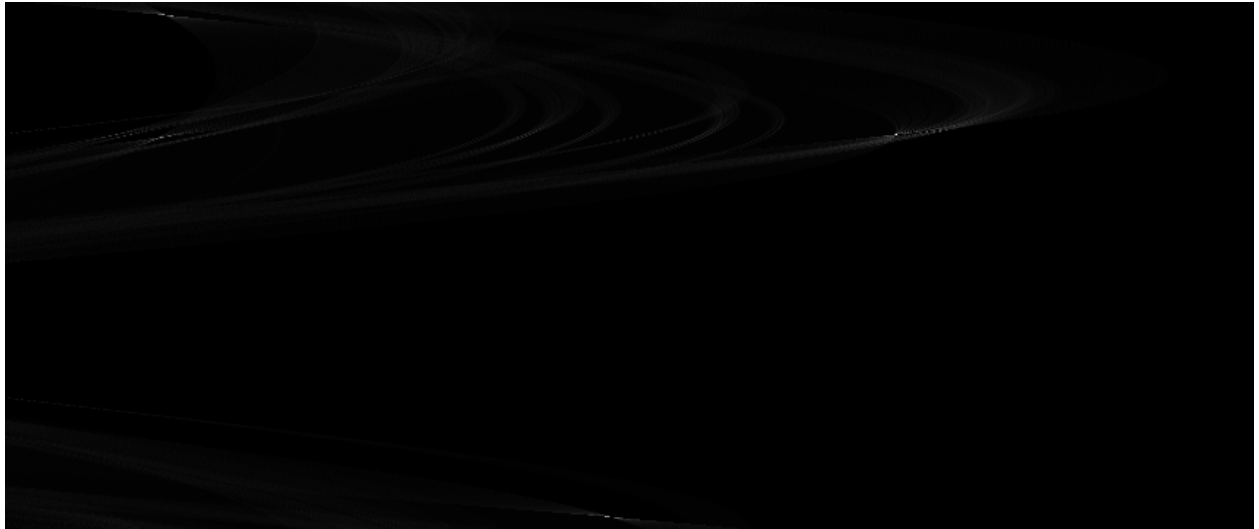


Edge Image



## Part 2: Hough Transform for Line Detection

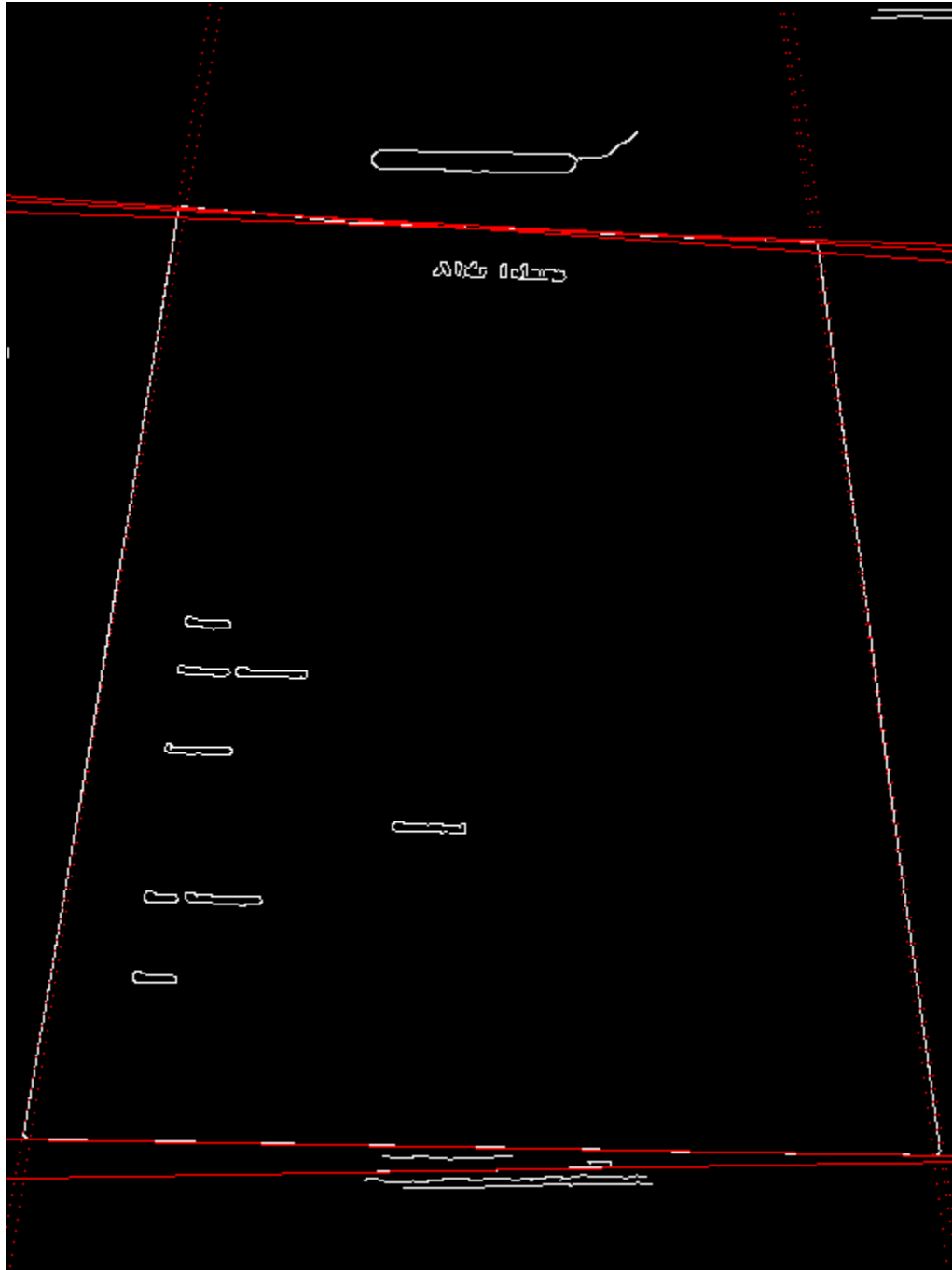
### Hough Transform Candidate Lines



### Part 3: Relevant Line Identification

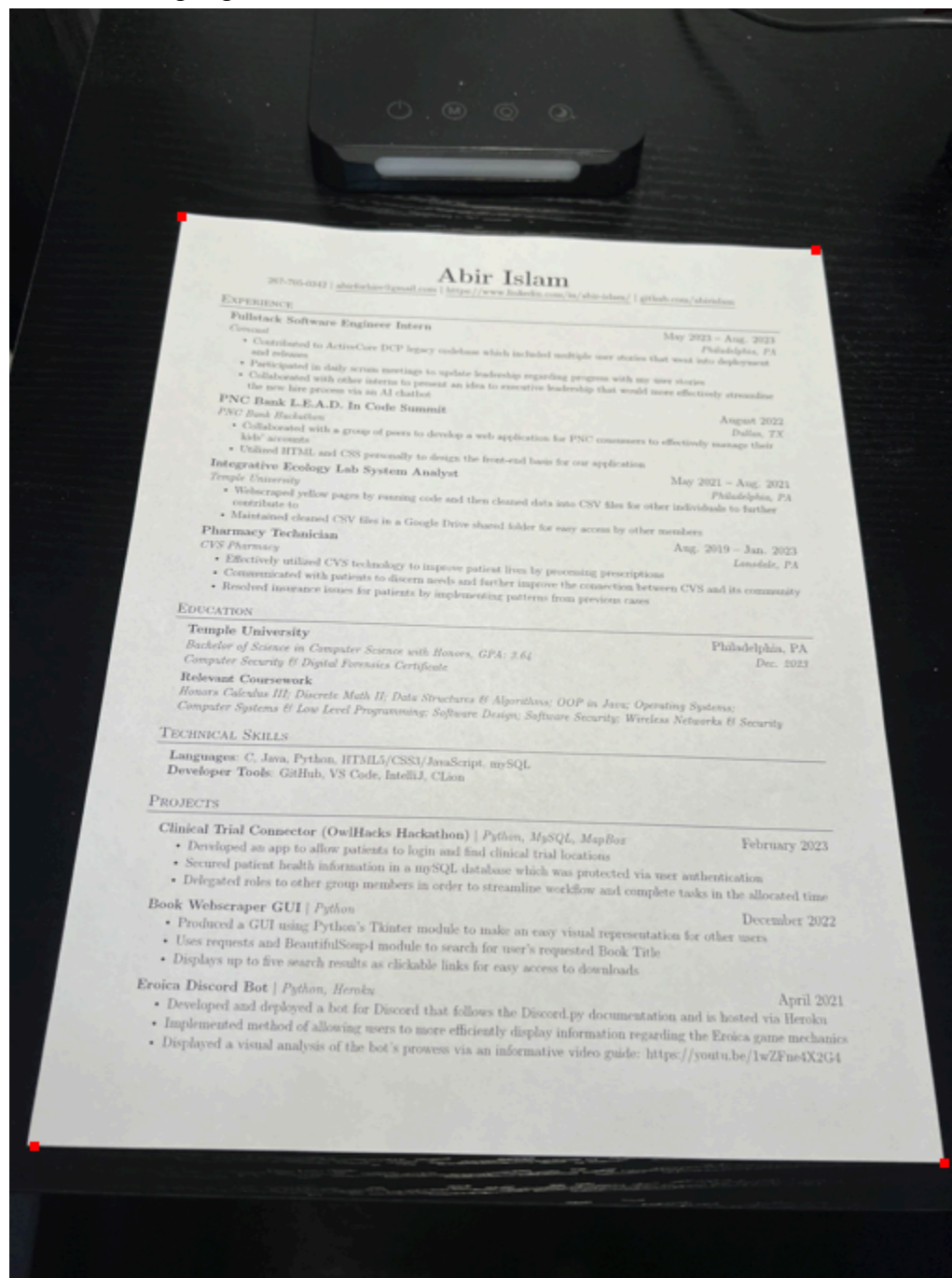
Superimposed lines on edge image

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

<h1>Abir Islam</h1> <p>281-766-0342   <a href="mailto:abir@abir.org">abir@abir.org</a>   <a href="https://www.linkedin.com/in/abir-islam/">https://www.linkedin.com/in/abir-islam/</a>   <a href="https://github.com/abirislam">github.com/abirislam</a></p>	
<h2>EXPERIENCE</h2>	
<b>Fullstack Software Engineer Intern</b> <i>Company</i> <ul style="list-style-type: none"><li>Contributed to ActiveCare DCP legacy codebase which included multiple user stories that went into deployment and releases</li><li>Participated in daily scrum meetings to update leadership regarding progress with my user stories</li><li>Collaborated with other interns to present an idea to executive leadership that would more effectively streamline the new hire process via an AI chatbot</li></ul>	May 2021 - Aug. 2021 Philadelphia, PA
<b>PNC Bank L.E.A.D. In Code Summit</b> <i>PNC Bank Hackathon</i> <ul style="list-style-type: none"><li>Collaborated with a group of peers to develop a web application for PNC consumers to effectively manage their kids' accounts</li><li>Utilized HTML and CSS personally to design the front-end basis for our application</li></ul>	August 2022 Dallas, TX
<b>Integrative Ecology Lab System Analyst</b> <i>Temple University</i> <ul style="list-style-type: none"><li>Webscrapped yellow pages by running code and then cleaned data into CSV files for other individuals to further contribute to</li><li>Maintained cleaned CSV files in a Google Drive shared folder for easy access by other members</li></ul>	May 2021 - Aug. 2021 Philadelphia, PA
<b>Pharmacy Technician</b> <i>CVS Pharmacy</i> <ul style="list-style-type: none"><li>Effectively utilized CVS technology to improve patient lives by processing prescriptions</li><li>Communicated with patients to discern needs and further improve the connection between CVS and its community</li><li>Resolved insurance issues for patients by implementing patterns from previous cases</li></ul>	Aug. 2019 - Jan. 2023 Lansdale, PA
<h2>EDUCATION</h2>	
<b>Temple University</b> <i>Bachelor of Science in Computer Science with Honors, GPA: 3.64</i> <i>Computer Security &amp; Digital Forensics Certificate</i> <b>Relevant Coursework:</b> <i>Honors Calculus III; Discrete Math II; Data Structures &amp; Algorithms; OOP in Java; Operating Systems; Computer Systems &amp; Low Level Programming; Software Design; Software Security; Wireless Networks &amp; Security</i>	Philadelphia, PA Dec. 2023
<h2>TECHNICAL SKILLS</h2>	
<b>Languages:</b> C, Java, Python, HTML5/CSS3/JavaScript, MySQL <b>Developer Tools:</b> GitHub, VS Code, IntelliJ, CLion	
<h2>PROJECTS</h2>	
<b>Clinical Trial Connector (OwlHacks Hackathon)</b>   Python, MySQL, MapBox <ul style="list-style-type: none"><li>Developed an app to allow patients to login and find clinical trial locations</li><li>Secured patient health information in a MySQL database which was protected via user authentication</li><li>Delegated roles to other group members in order to streamline workflow and complete tasks in the allocated time</li></ul>	February 2023
<b>Book Webscraper GUI</b>   Python <ul style="list-style-type: none"><li>Produced a GUI using Python's Tkinter module to make an easy visual representation for other users</li><li>Uses requests and BeautifulSoup module to search for user's requested Book Title</li><li>Displays up to five search results as clickable links for easy access to downloads</li></ul>	December 2022
<b>Ecoica Discord Bot</b>   Python, Heroku <ul style="list-style-type: none"><li>Developed and deployed a bot for Discord that follows the Discord.py documentation and is hosted via Heroku</li><li>Implemented method of allowing users to more efficiently display information regarding the Ecoica game mechanics</li><li>Displayed a visual analysis of the bot's progress via an informative video guide: <a href="https://youtu.be/1wZFuo4X2G4">https://youtu.be/1wZFuo4X2G4</a></li></ul>	April 2021



Part 6: Another Image!

Original Image

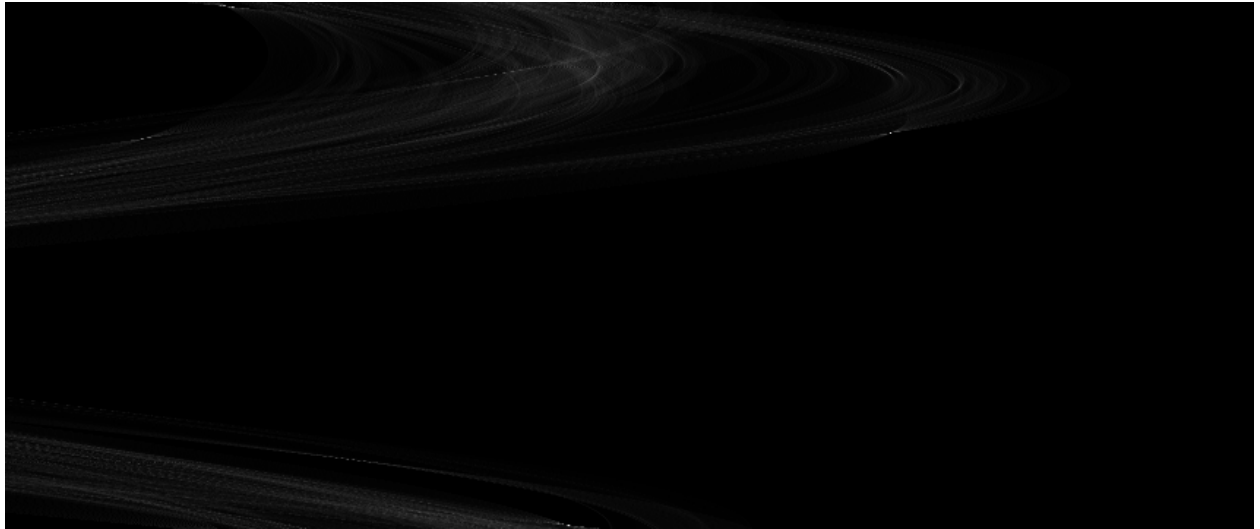


Edge Image

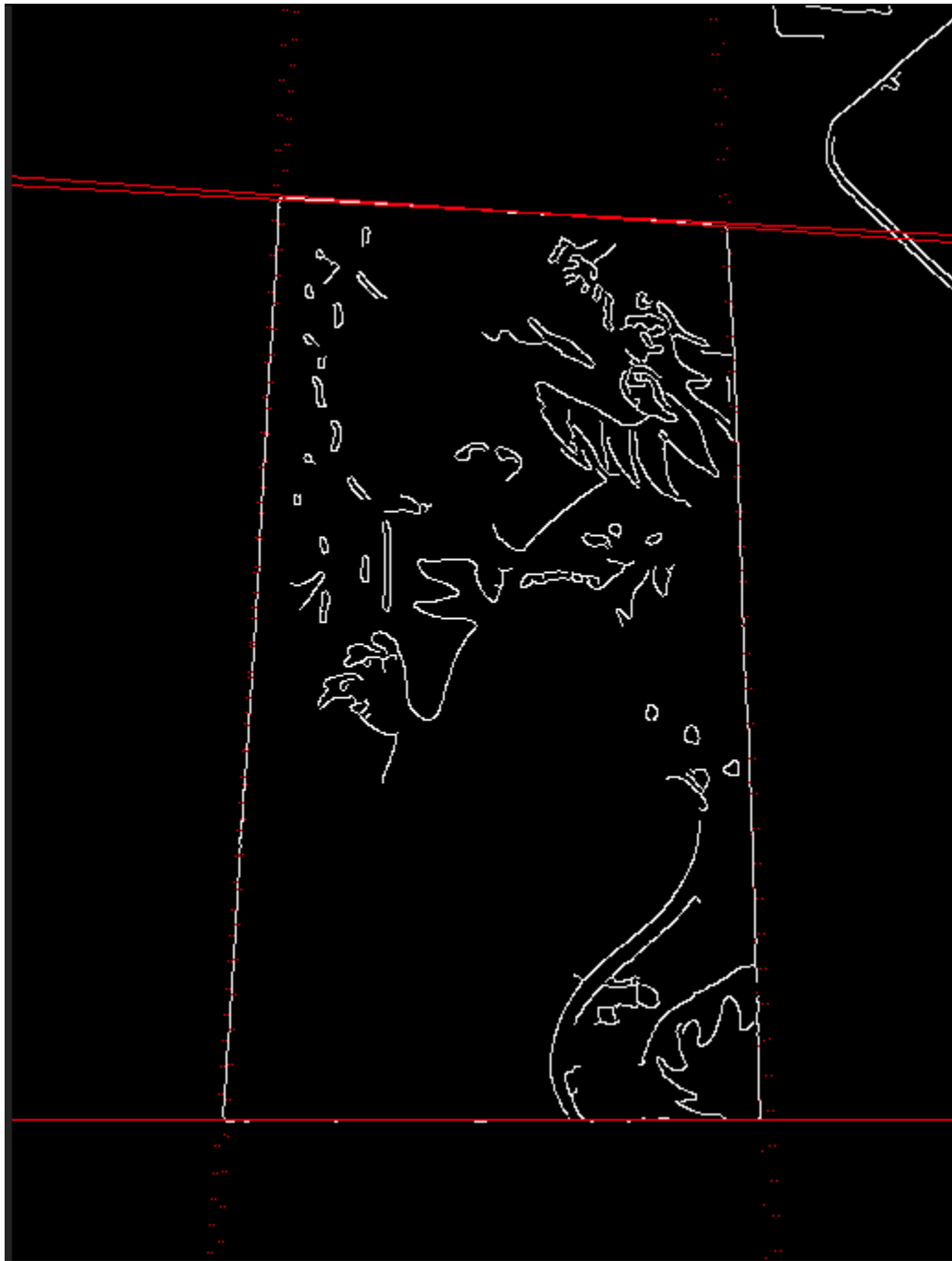




Hough Transform Image



Superimposed Lines on Edge Image



4 Corners Highlighted



Rectified Image

