

Perspective Video.py - C:/Users/chgan/Documents/OneDrive/Perspective Video.py (3.1...

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```
import cv2
import numpy as np

cap = cv2.VideoCapture("C:\\Users\\chgan\\Downloads\\LEWIS HAMILTON WINS THE

while True:
    ret, frame = cap.read()
    if not ret:
        break

    pts1 = np.float32([[200, 300], [5, 2], [0, 4], [6, 0]])
    pts2 = np.float32([[0, 0], [400, 0], [0, 600], [400, 600]])

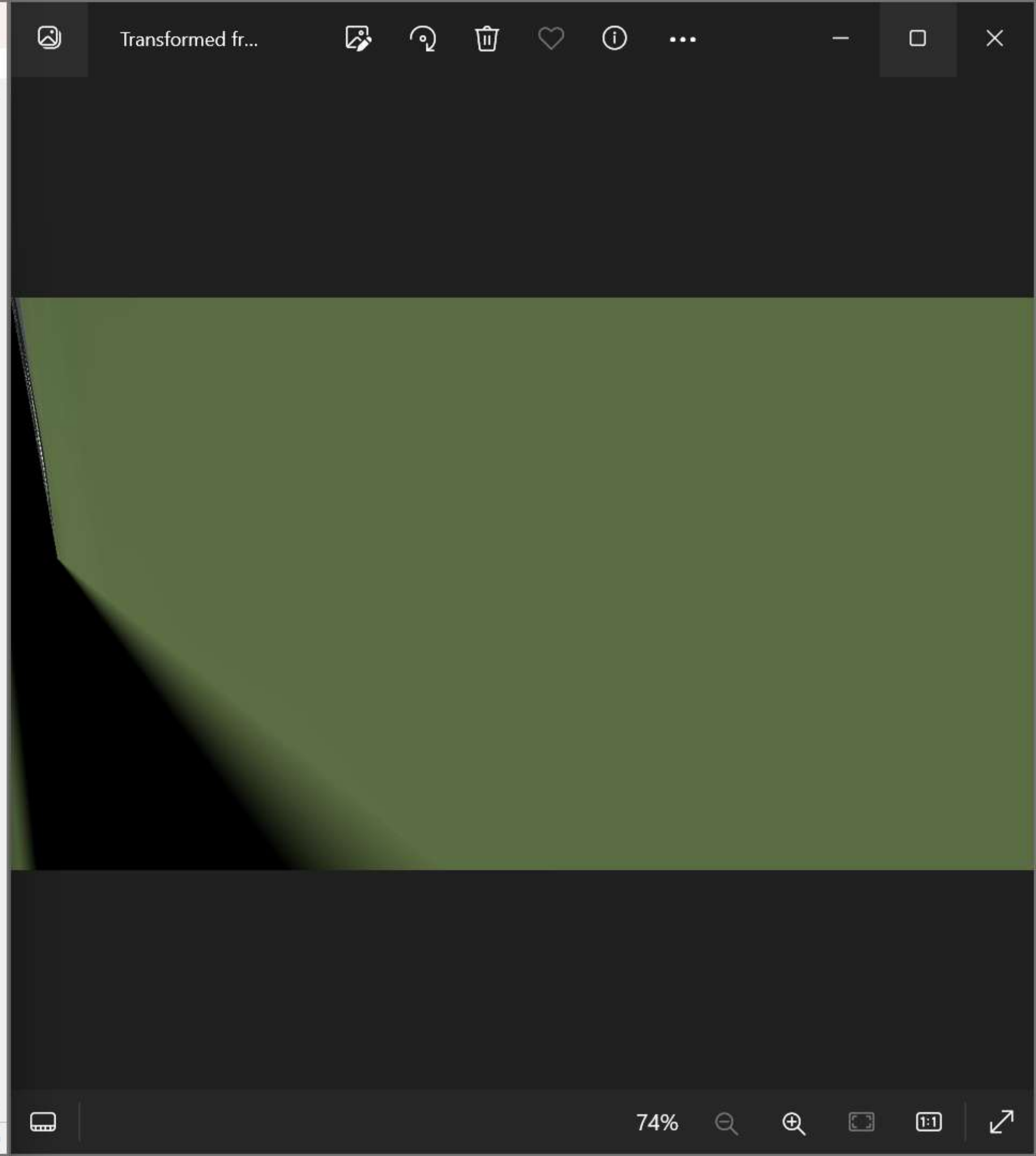
    matrix = cv2.getPerspectiveTransform(pts1, pts2)
    result = cv2.warpPerspective(frame, matrix, (frame.shape[1], frame.shape[0]))

    cv2.imshow('frame', frame)
    cv2.imshow('transformed_frame', result)

    if cv2.waitKey(24) & 0xFF == 27:
        break

cap.release()
cv2.destroyAllWindows()
```

Ln: 25 Col: 0



```
Homography Matrix.py - C:/Users/chgan/AppData/Local/Programs/Python/Python311/...
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import cv2
import numpy as np

im_src = cv2.imread(r"C:\Users\chgan\Downloads\REDBULL 2016.jpg")
pts_src = np.array([[141, 131], [480, 159], [493, 630], [64, 601]])

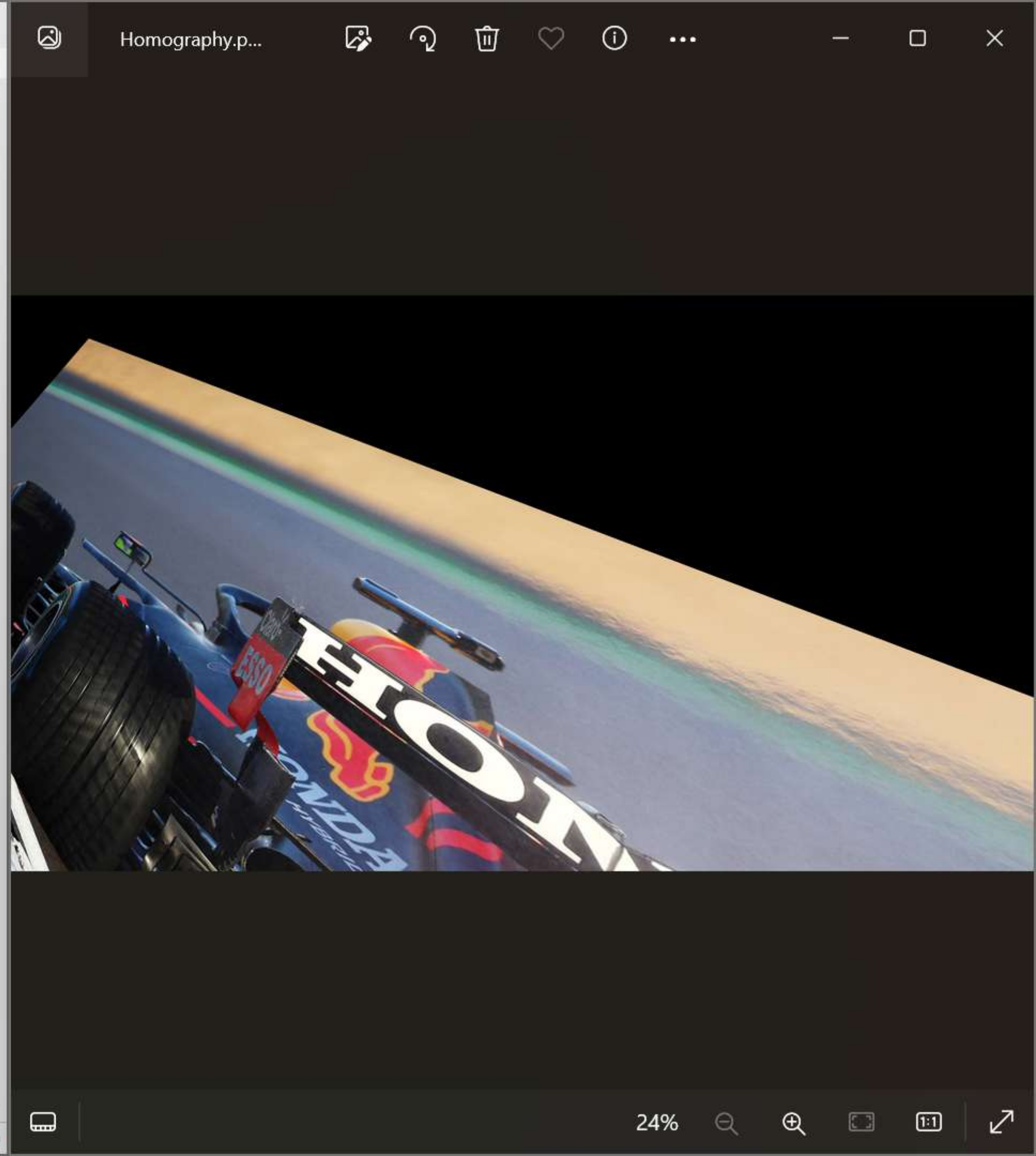
im_dst = cv2.imread(r"C:\Users\chgan\Downloads\REDBULL 2016.jpg")
pts_dst = np.array([[318, 256], [534, 372], [316, 670], [73, 473]])

h, status = cv2.findHomography(pts_src, pts_dst)

im_out = cv2.warpPerspective(im_src, h, (im_dst.shape[1], im_dst.shape[0]))

cv2.imshow("Source Image", im_src)
cv2.imshow("Destination Image", im_dst)
cv2.imshow("Warped Source Image", im_out)
cv2.waitKey(0)
```

Ln: 18 Col: 0




```
import cv2
import numpy as np

img1 = cv2.imread(r"C:\Users\chgan\Downloads\LEWIS & LECLERC.jpg")
img2 = cv2.imread(r"C:\Users\chgan\Downloads\LEWIS & LECLERC.jpg")

pts1 = np.array([[50, 50], [200, 50], [50, 200], [200, 200]])
pts2 = np.array([[100, 100], [300, 100], [100, 300], [300, 300]])

H, _ = cv2.findHomography(pts1, pts2)

dst = cv2.warpPerspective(img1, H, (img2.shape[1], img2.shape[0]))

cv2.imshow('img1', img1)
cv2.imshow('img2', img2)
cv2.imshow('dst', dst)
cv2.waitKey(0)
cv2.destroyAllWindows()
```



Previous



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```
import cv2
img = cv2.imread("C:\\Users\\chgan\\Downloads\\LH 44.jpg")

cv2.imshow('Original', img)
cv2.waitKey(0)

img_gray = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)
img_blur = cv2.GaussianBlur(img_gray, (3,3), 0)

edges = cv2.Canny(image=img_blur, threshold1=100, threshold2=200) # Canny Edge

cv2.imshow('Canny Edge Detection', edges)
cv2.waitKey(0)
cv2.destroyAllWindows()
```



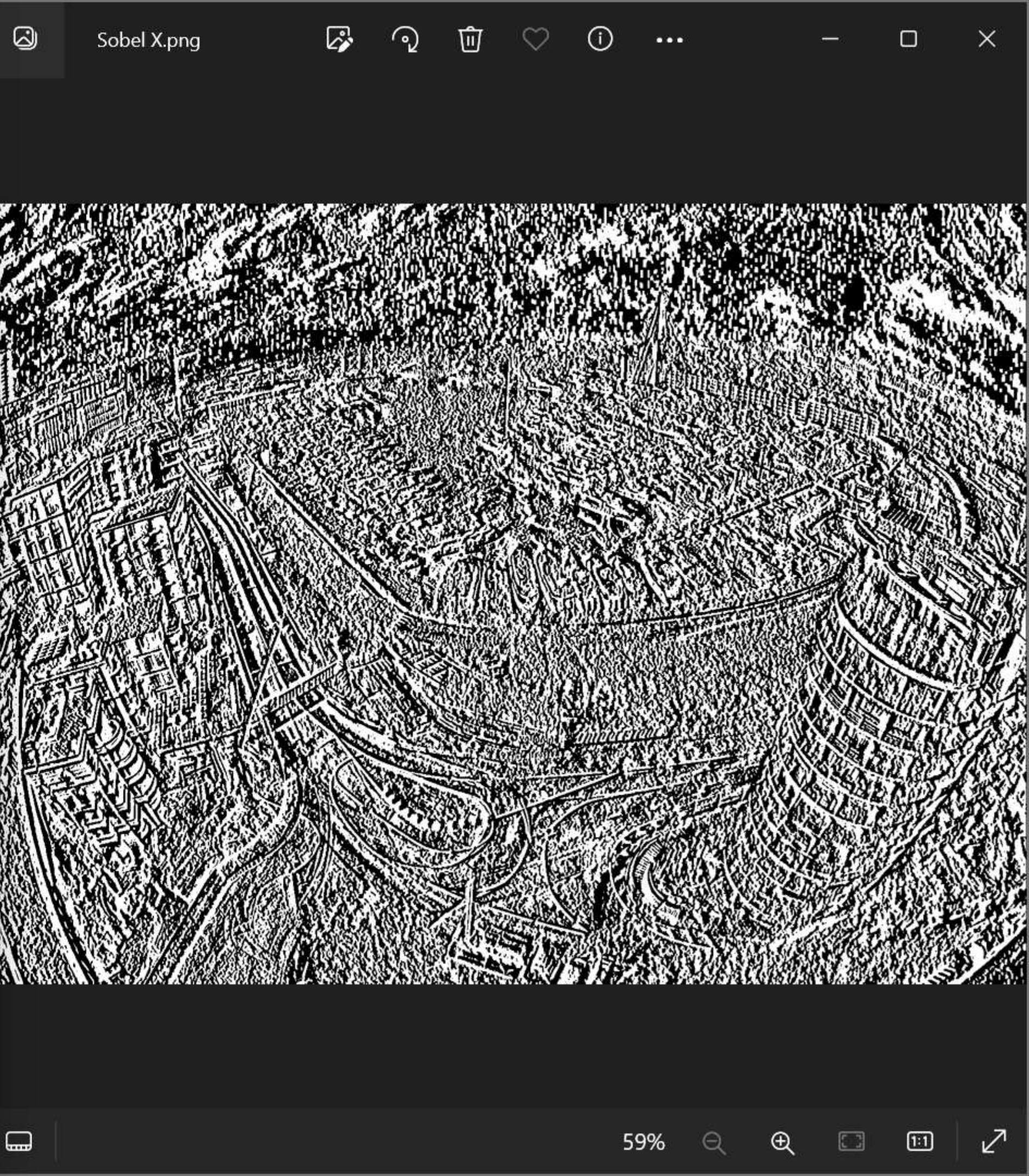

```
import cv2

img = cv2.imread(r"C:\Users\chgan\Downloads\MONACO GP.jpeg")
cv2.imshow('Original', img)
cv2.waitKey(0)

img_gray = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)
img_blur = cv2.GaussianBlur(img_gray, (3,3), 0)

sobelx = cv2.Sobel(src=img_blur, ddepth=cv2.CV_64F, dx=1, dy=0, ksize=5)

cv2.imshow('Sobel X', sobelx)
cv2.waitKey(0)
```




```
import cv2

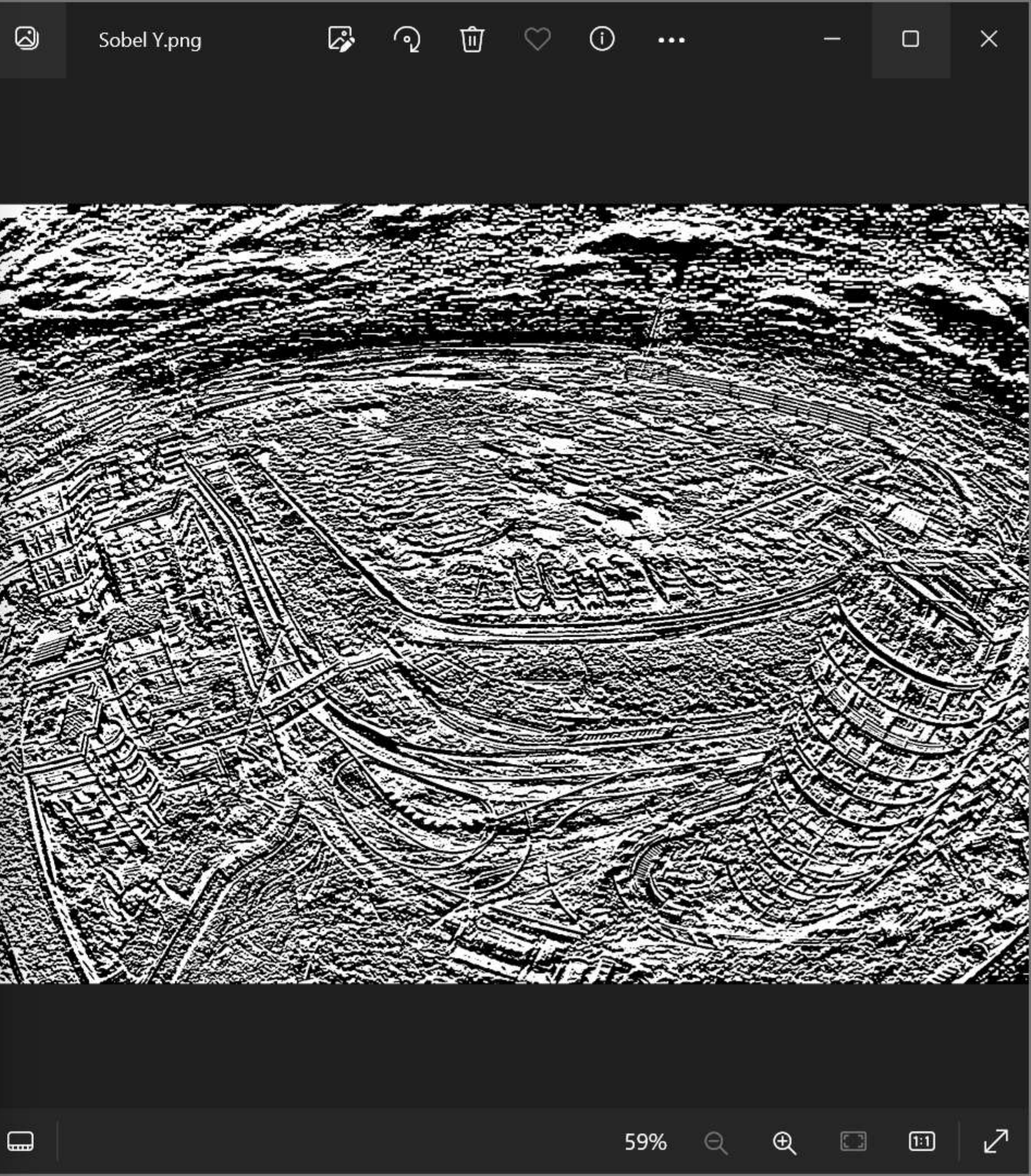
img = cv2.imread(r"C:\Users\chgan\Downloads\MONACO GP.jpeg")

cv2.imshow('Original', img)
cv2.waitKey(0)

img_gray = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)
img_blur = cv2.GaussianBlur(img_gray, (3,3), 0)

sobely = cv2.Sobel(src=img_blur, ddepth=cv2.CV_64F, dx=0, dy=1, ksize=5)

cv2.imshow('Sobel Y', sobely)
cv2.waitKey(0)
```



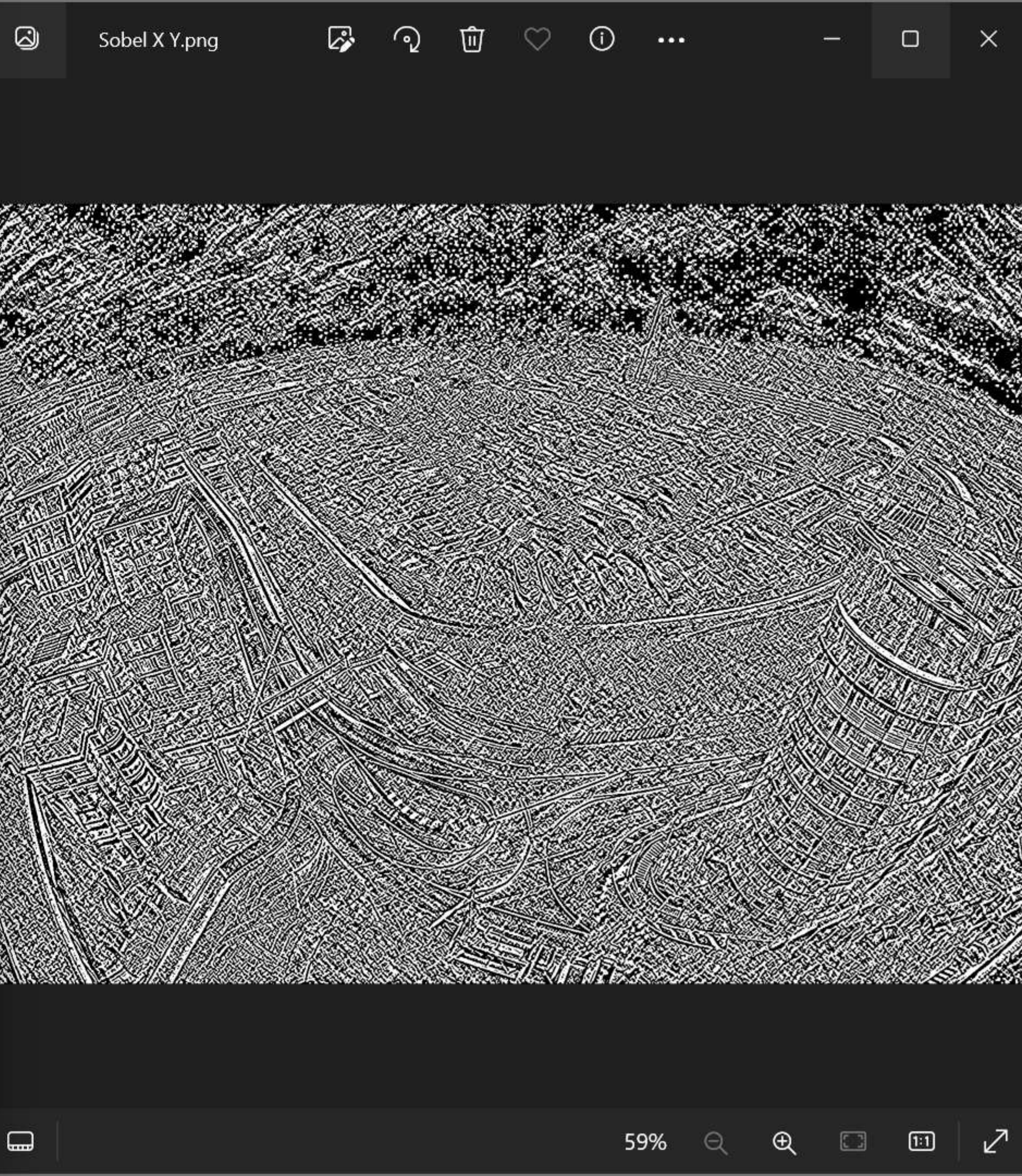

```
import cv2

img = cv2.imread(r"C:\Users\chgan\Downloads\MONACO GP.jpeg")

cv2.imshow('Original', img)
cv2.waitKey(0)

img_gray = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)
img_blur = cv2.GaussianBlur(img_gray, (3,3), 0)
sobelxy = cv2.Sobel(src=img_blur, ddepth=cv2.CV_64F, dx=1, dy=1, ksize=5)

cv2.imshow('Sobel X Y using Sobel() function', sobelxy)
cv2.waitKey(0)
```




```
import cv2
import numpy as np
img = cv2.imread(r"C:\Users\chgan\Downloads\W13.jpg")
gray = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)
kernel = np.array([[0,1,0], [1,-8,1], [0,1,0]])
sharpened = cv2.filter2D(gray, -1, kernel)
cv2.imshow('Original', gray)
cv2.imshow('Sharpened', sharpened)
cv2.waitKey(0)
cv2.destroyAllWindows()
```



It was at one time for me
a great thing to see
the way it was
the way it was
the way it was
the way it was
the way it was
the way it was

Sharpened.png



Sharpened.png

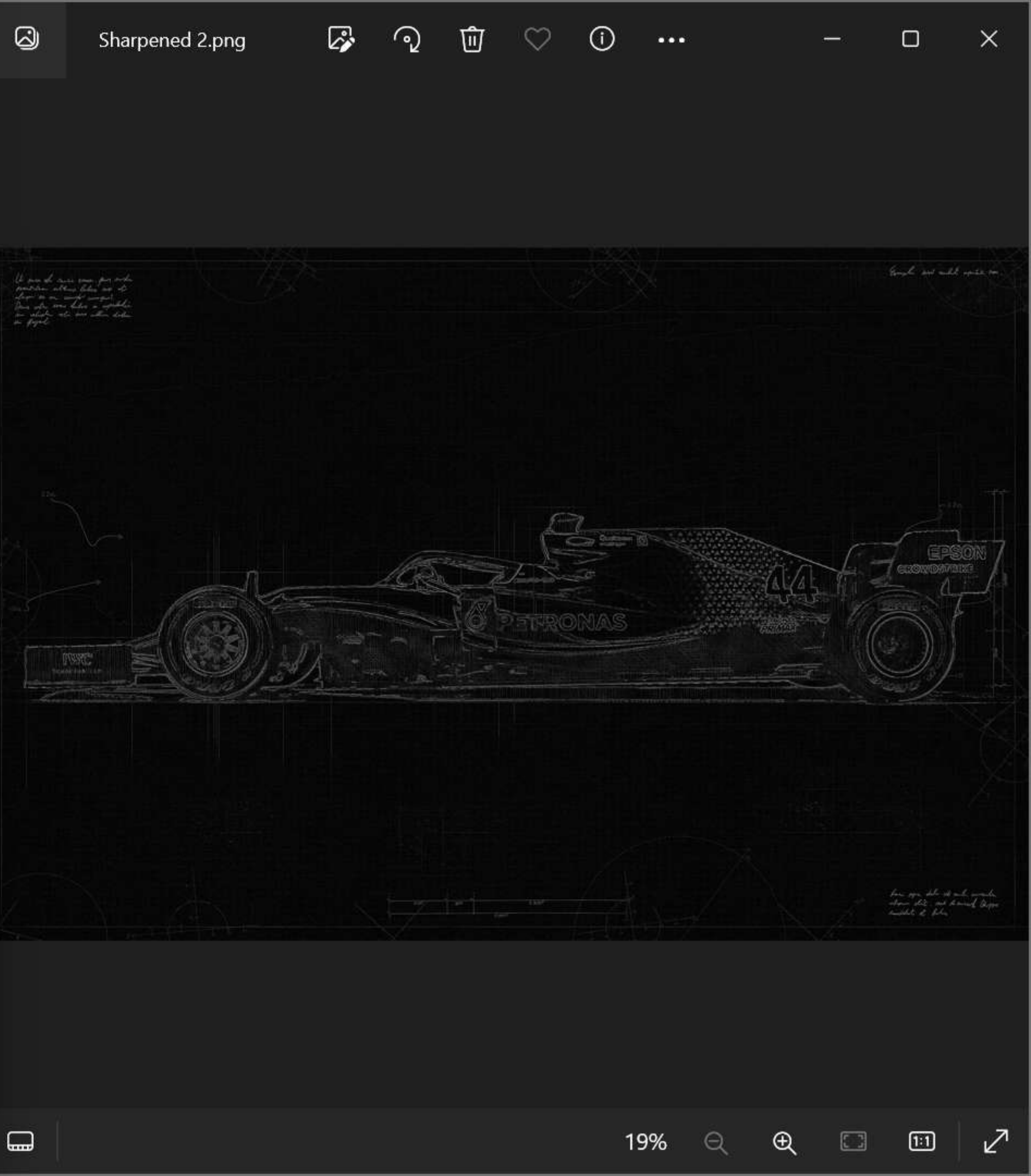



```
import cv2
import numpy as np

img = cv2.imread(r"C:\Users\chgan\Downloads\W13.jpg")
gray = cv2.cvtColor(img, cv2.COLOR_BGR2GRAY)

kernel = np.array([[0,1,0], [1,-4,1], [0,1,0]])
sharpened = cv2.filter2D(gray, -1, kernel)

cv2.imshow('Original', gray)
cv2.imshow('Sharpened', sharpened)
cv2.waitKey(0)
cv2.destroyAllWindows()
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```
import cv2
import numpy as np

img = cv2.imread(r"C:\Users\chgan\Downloads\FERRARI SF-75.jpg")
rows,cols,ch = img.shape

pts1 = np.float32([[56,65],[368,52],[28,387],[389,390]])
pts2 = np.float32([[100,50],[300,0],[0,300],[300,300]])

M = cv2.getPerspectiveTransform(pts1,pts2)
dst = cv2.warpPerspective(img,M,(cols, rows))

cv2.imshow('Transformed Image', dst)
cv2.waitKey(0)
cv2.destroyAllWindows()
|
```

