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In [7]: # Our Setup, Import Libraries, Create our Imshow Function and Download our Images
import cv2
import numpy as np
from matplotlib import pyplot as plt

# Define our imshow function
def imshow(title = "Image", image = None, size = 10):
    w, h = image.shape[0], image.shape[1]
    aspect_ratio = w/h
    plt.figure(figsize=(size * aspect_ratio,size))
    plt.imshow(cv2.cvtColor(image, cv2.COLOR_BGR2RGB))
    plt.title(title)
    plt.show()
```

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In [9]: image = cv2.imread('board.jpg')
gray = cv2.cvtColor(image, cv2.COLOR_BGR2GRAY)

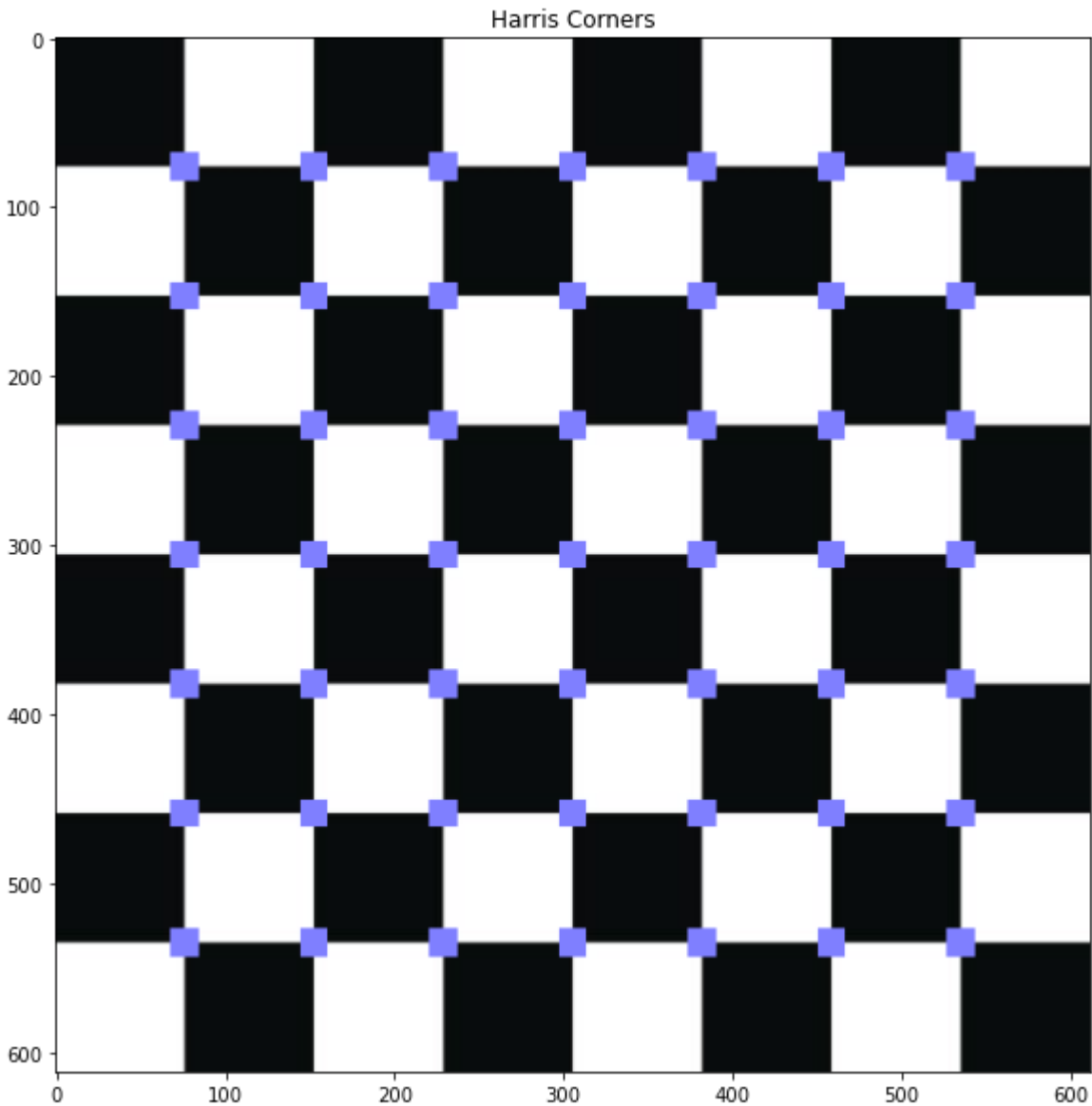
# The cornerHarris function requires the array datatype to be float32
gray = np.float32(gray)

harris_corners = cv2.cornerHarris(gray, 3, 3, 0.05)

#We use dilation of the corner points to enlarge them\
kernel = np.ones((7,7),np.uint8)
harris_corners = cv2.dilate(harris_corners, kernel, iterations = 2)

# Threshold for an optimal value, it may vary depending on the image.
image[harris_corners > 0.025 * harris_corners.max() ] = [255, 127, 127]

imshow('Harris Corners', image)
```

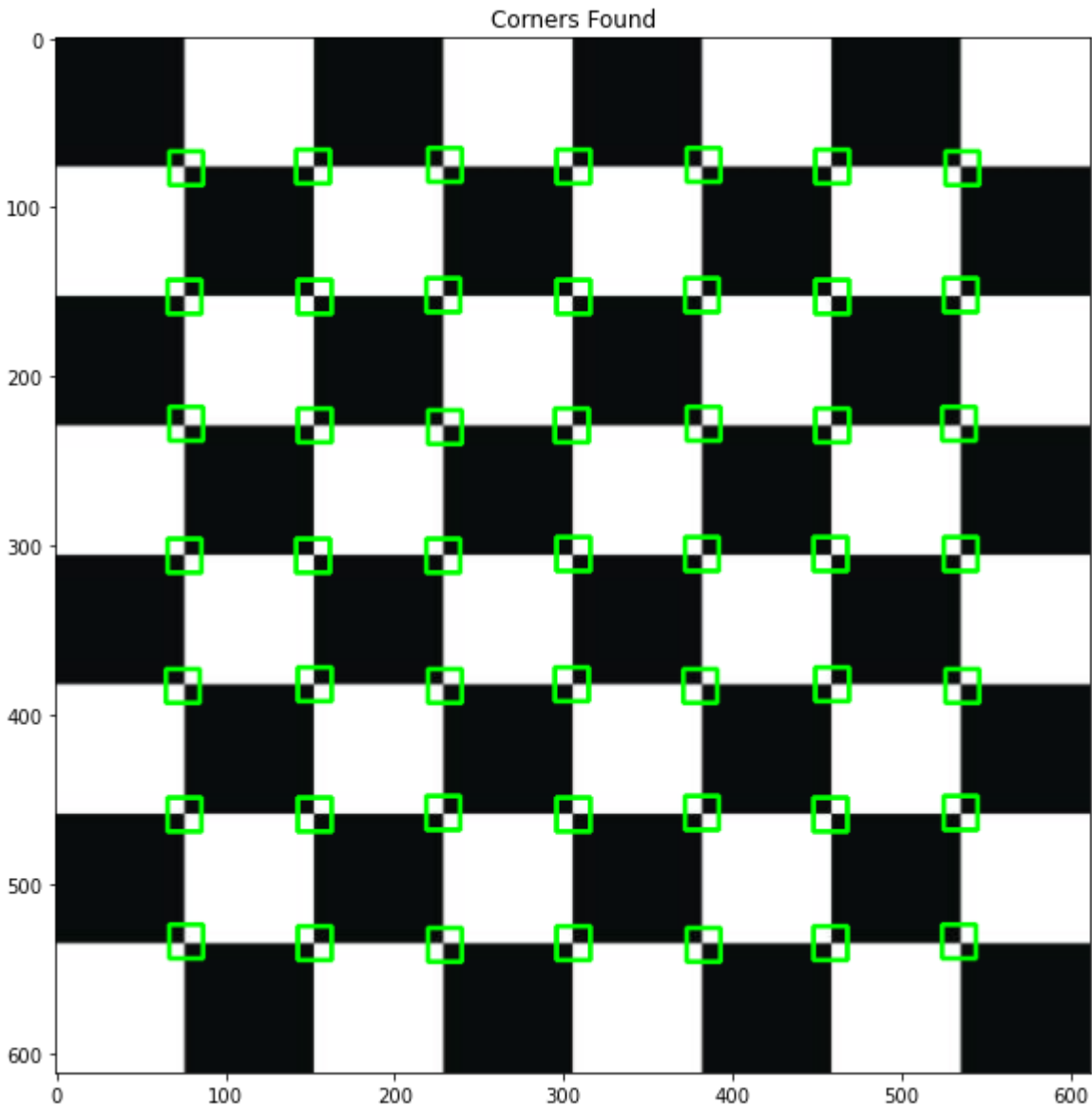


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In [10]: img = cv2.imread('board.jpg')
gray = cv2.cvtColor(img,cv2.COLOR_BGR2GRAY)

# We specific the top 50 corners
corners = cv2.goodFeaturesToTrack(gray, 150, 0.0005, 10)

for corner in corners:
    x, y = corner[0]
    x = int(x)
    y = int(y)
    cv2.rectangle(img,(x-10,y-10),(x+10,y+10),(0,255,0), 2)

imshow("Corners Found", img)
```



In [ ]: