import cv2

import numpy as np

from matplotlib import pyplot as plt

image = cv2.imread('1.png', cv2.IMREAD\_GRAYSCALE)

laplacian\_kernel = np.array([[0, 1, 0],

[1, -4, 1],

[0, 1, 0]])

boundary = cv2.filter2D(image, -1, laplacian\_kernel)

cv2.imwrite('4.png', boundary)

plt.figure(figsize=(10, 4))

plt.subplot(1, 2, 1)

plt.title("Original")

plt.imshow(image, cmap='gray')

plt.axis('off')

plt.subplot(1, 2, 2)

plt.title("Image Boundary")

plt.imshow(boundary, cmap='gray')

plt.axis('off')

plt.tight\_layout()

plt.show()

