import cv2

import matplotlib.pyplot as plt

# 读取图像

image\_path = 'path/to/your/image.jpg'

original\_image = cv2.imread(image\_path)

# 将图像转换为灰度图像

gray\_image = cv2.cvtColor(original\_image, cv2.COLOR\_BGR2GRAY)

# 显示原始图像和灰度图像

plt.subplot(1, 2, 1)

plt.title('Original Image')

plt.imshow(cv2.cvtColor(original\_image, cv2.COLOR\_BGR2RGB))

plt.axis('off')

plt.subplot(1, 2, 2)

plt.title('Grayscale Image')

plt.imshow(gray\_image, cmap='gray')

plt.axis('off')

plt.show()