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import cv2

import numpy as np


# Load the original color image

image = cv2.imread(r"C:\Users\SAIL\Downloads\CV\beeflower.jpg") # Replace with your image file

if image is None:

    print("Error: Image not found or path is incorrect.")

    exit()


# Define a kernel (structuring element)

kernel = np.ones((5, 5), np.uint8)


# Apply Top-hat operation to each color channel

b, g, r = cv2.split(image)

b_tophat = cv2.morphologyEx(b, cv2.MORPH_TOPHAT, kernel)

g_tophat = cv2.morphologyEx(g, cv2.MORPH_TOPHAT, kernel)

r_tophat = cv2.morphologyEx(r, cv2.MORPH_TOPHAT, kernel)


# Merge the processed channels back into a color image

tophat_color = cv2.merge((b_tophat, g_tophat, r_tophat))


# Show original and Top-hat result

cv2.imshow('Original Color Image', image)

cv2.imshow('Top-hat (Color)', tophat_color)

cv2.waitKey(0)
```

`cv2.destroyAllWindows()`

