

In []:

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import cv2 as cv
import numpy as np

img = cv.imread('image11.jpg')

def white_balance(img):
    result = cv.cvtColor(img, cv.COLOR_BGR2LAB)
    avg_a = np.average(result[:, :, 1])
    avg_b = np.average(result[:, :, 2])
    result[:, :, 1] = result[:, :, 1] - ((avg_a - 128) * (result[:, :, 1] - 128))
    result[:, :, 2] = result[:, :, 2] - ((avg_b - 128) * (result[:, :, 2] - 128))
    result = cv.cvtColor(result, cv.COLOR_LAB2BGR)

    return result

final = np.hstack((img, white_balance(img)))
#show(final)

cv.imwrite('myresult.jpg', final)
cv.imshow("result", final)
cv.waitKey(0)
cv.destroyAllWindows()
```

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