

Assignment 2

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1 Introduction

In homework, we tried to transfer the colors of one picture to another. It was a different and fun experience. My expectation is to learn the color transfer and then be able to apply this change to different photos as I want.

2 Experiment

2.1 Part 1

First, I converted the source and target images from RGB color space to L color space representation. $\text{lab}_i = \text{rgb2lab}(\text{rgb}_i)$

Afterwards, I divided the space representations that I transformed into their channels. $(\text{l}_i, \text{a}_i, \text{b}_i) = \text{cv2.split}(\text{lab}_i)$

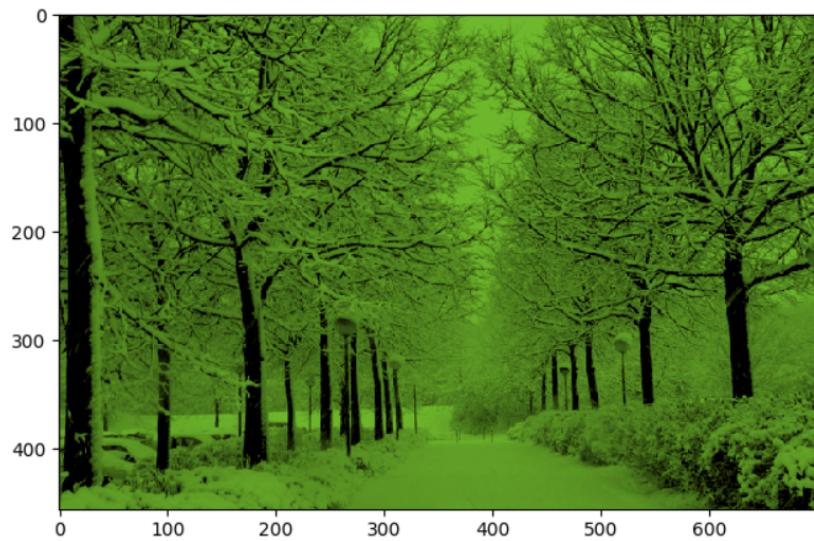
I calculated the mean and standard deviation values for all channels. And by processing these values on the space of the source image, I transferred the colors of the target image to the source image.



(a)



(b)



(a) is source photo and (b) is target photo. This is my resource photo.





(b)



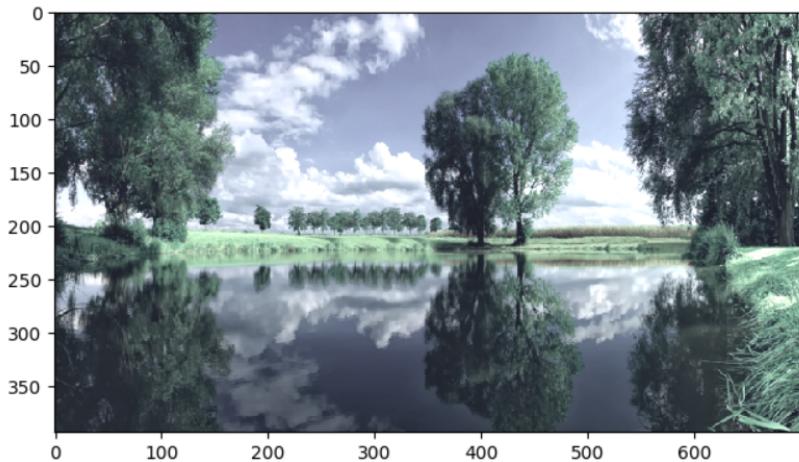
(a) is source photo and (b) is target photo. This is my resource photo.



(a)



(b)



(a) is source photo and (b) is target photo. This is my resource photo.

2.2 Part 2

3 Conclusion

The most interesting part for me was changing the colors for all the pixels individually. I learned this and I think it has given me a lot. [1]

References

- [1] D. Adams. *The Hitchhiker's Guide to the Galaxy*. San Val, 1995.