Summer Poissonnier

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CAP 4401

Assignment 2

Part 1:

The first part of this assignment took us a while because we spent some time going through the apps listed and figuring out which we wanted to use. At first, we wanted to use the image labeler app, but we had a very hard time figuring out how to export it into a live script. Instead, we ended up going with the image threshold app because it seemed very intriguing. Upon going through the documentation and examples for this app, we found many uses for it. It is interesting how this app can take an image and alter the color of the image. We spent a lot of time in MATLAB learning this app. We tested it out by trying to figure out the different features on some basic pictures. The app has features such as: altering the color of the image background, changing the RGB of the image, getting the binary of the image, and many other interesting features. This app can come in handy when wanting to decipher how much of a color an image contains ie how much Red is in the image versus Green and Blue and in segmentation. It can also change the way an image looks and make it more intriguing to the human eye depending on how you manipulate the colors.

Part 2:

We decided to test how much Red versus Blue and Green were in four brightly-colored landscape/nature images. We used the color threshold app and chose the RGB color threshold to work in. We drained the color Red first and brought the bar to 0, thus leaving only Green and Blue in the images. We repeated this process for Green and Blue as well. We then spent some time reading documentation and googling how to export the function that was created in the app. It took us a little time to understand how to pass the images to the function once it was exported, but once we figured it out the process went by smoothly. We then created a live script and created a dropdown menu so the user can select between 4 images. The live script was very simple to create.

If we had more time, we would include more images to test. The more images, the more "data" you have for your test. We would also test out the other color editors in the threshold app: HSV, YCbCr, and L*a*b*. It would have been nice to test out these editors on more images. We also would have done more things to the live script; we would have coded to place the images in a 4x4 matrix or organize it better. We would have tried to figure out the image labeler app as well.

We used a drop down in the live script but it did not show up on the report: