Homework #3 \_ Report

CS-3150

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# After import all the package, first set up the threshold for detect human skin from background (provided in the paper *A survey of skin-color modeling and detection methods* )

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# Create a 1D filter which can apply on the L component histogram to find the threshold for the poor image.

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# Read the better quality image and apply the skin\_rgb\_threshold to it for detecting the human skin.

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# Successfully detect the skin from the better quality image

A person posing for the camera

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# Then read the poor quality image

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# Convert the image to LUV and plot the histogram of the L component (which is the luminance)

Apply the filter created above onto the histogram to find the largest valley. Set the threshold based on the valley can replace all the value which is larger than the threshold (the background in the image) to 0 (black)

Then replace the new L value back to the LUV image.

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# Convert the new LUV image back to RGB, then apply the skin\_rgb\_threshold to the new image to detect the human skin

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# Successfully detect the skin from the poor quality image

A close up of a person

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