COMPUTER VISION
#MP2
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Description:
Implemented a histogram equalization algorithm to make the given image clearer.

Algorithm:
Converted the BGR image to grayscale.
Created a histogram along with its corresponding bin of the grayscale image using numpy hist function.
Calculated the cumulative histogram from the above result using numpy cumsum function and then normalized the values from 0-255.
Looped through the grayscale image and for every pixel value found the corresponding normalized cumulative histogram value and saved it in a new array.
Converted the resulting image to type uint8 (0-255) and finally converted it to its BGR image.

Result Analysis:

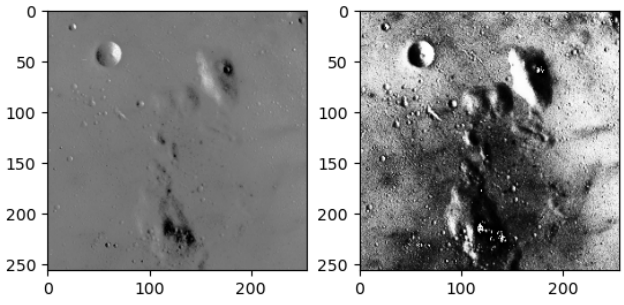

Fig.1: Original vs Equalized Image

The resulting image is a better version compared to the original image due to a more spread out histogram. However, as expected it has uneven lighting with some parts brighter than others.