contraststretchoing_histogram_equalization_QUE2

October 19, 2023

[19]:
```
import cv2
import numpy as np
import matplotlib.pyplot as plt
img=cv2.imread("snow.jpg",0)
min_intensity=np.min(img)
max_intensity=np.max(img)
stretched_image=((img-min_intensity)/(max_intensity - min_intensity)*255).
 ↪astype(np.uint8)

hist_original=cv2.calcHist([img],[0],None,[255],[0,255])
hist_stretched=cv2.calcHist([stretched_image],[0],None,[255],[0,255])

equalized_image=cv2.equalizeHist(img)
hist_equalized=cv2.calcHist([equalized_image],[0],None,[255],[0,255])

plt.figure(figsize=(12,8))

plt.subplot(231)
plt.title("Original image")
plt.imshow(img,"Accent")
plt.axis("off")

plt.subplot(232)
plt.title("Stretched image")
plt.imshow(stretched_image,"Accent")
plt.axis("off")

plt.subplot(233)
plt.title("Equalized image")
plt.imshow(equalized_image,"Accent")
plt.axis("off")

plt.subplot(234)
plt.title("Histogram Original")
plt.plot(hist_original)
plt.xlim([0,255])
```

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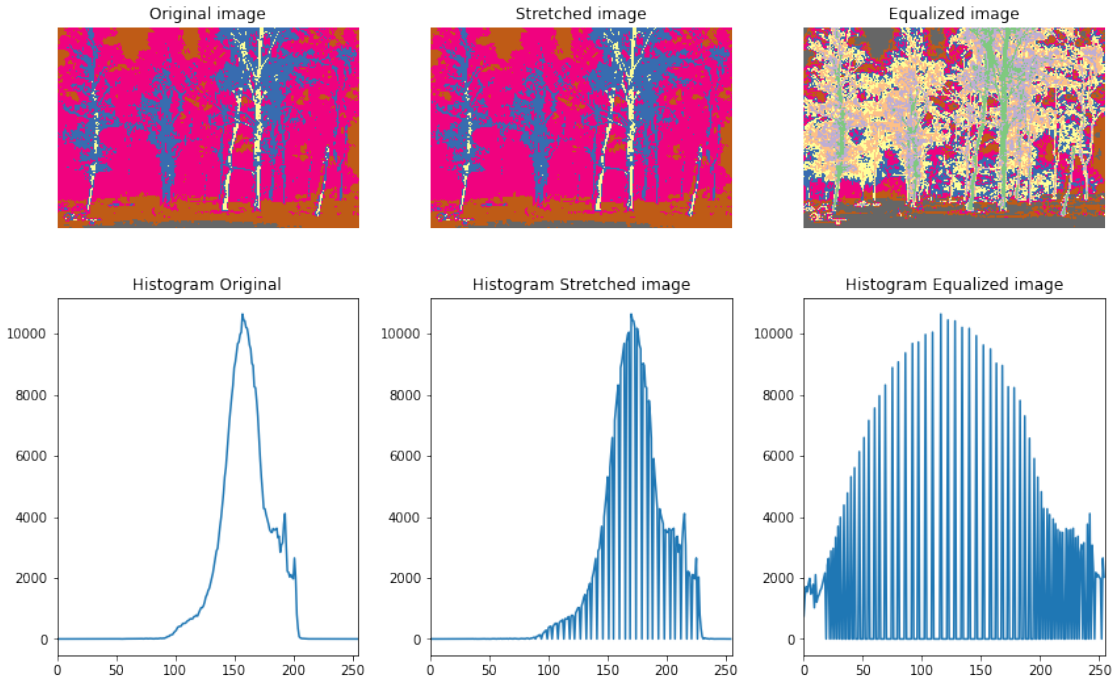
plt.subplot(235)
plt.title("Histogram Stretched image")
plt.plot(hist_stretched)
plt.xlim([0,255])

plt.subplot(236)
plt.title("Histogram Equalized image")
plt.plot(hist_equalized)
plt.xlim([0,255])

plt.tight_layout()
plt.show()
```



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