image_transformation_2

November 21, 2022

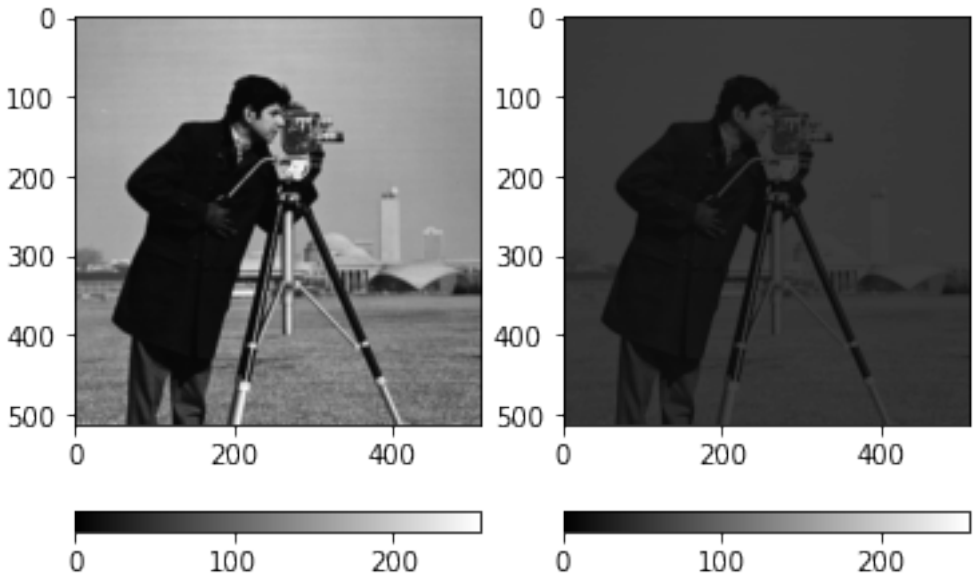
[1]:
```
import numpy as np
import matplotlib.pyplot as plt
from skimage import io, data, img_as_ubyte
```

1 Log

[2]:
```
im = data.camera()
im = im.astype(np.float)
s = 0.1
c = 255 / (np.log(1 + np.abs(im.max())))
imln = c * np.log10(1 + (np.exp(s) - 1) * im)

fig = plt.figure()
ax = fig.add_subplot(1, 2, 1)
p = plt.imshow(im, cmap='gray')
c = plt.colorbar(orientation='horizontal')
plt.clim(0, 255)

ax = fig.add_subplot(1, 2, 2)
p = plt.imshow(imln, cmap='gray')
c = plt.colorbar(orientation='horizontal')
plt.clim(0, 255)
```

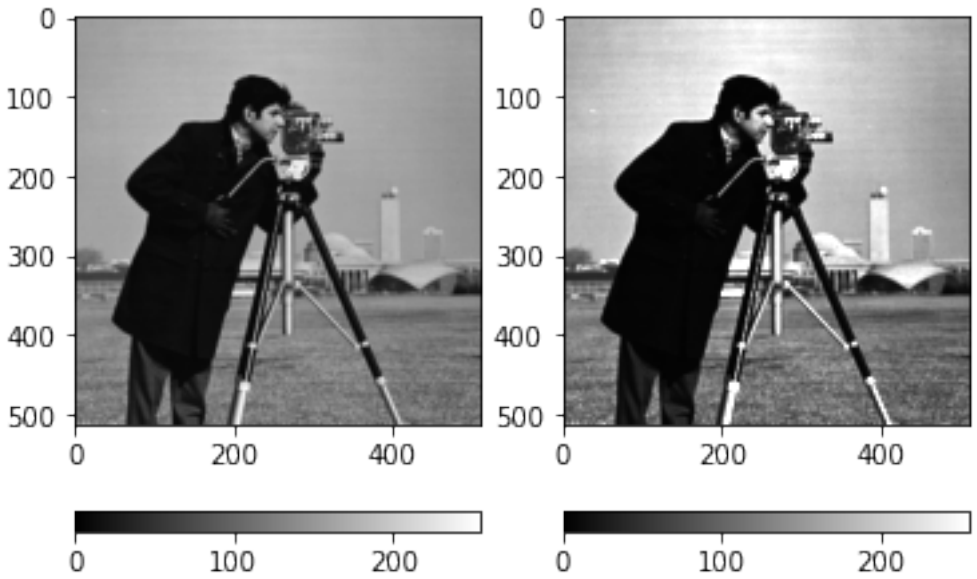


2 Exp

[3]:
```
im = data.camera()
im = im.astype(np.float)
a = 0.01
c = 255 / (np.log(1 + np.abs(im.max())))
imexp = c * (np.power(1 + a, im) - 1)

fig = plt.figure()
ax = fig.add_subplot(1, 2, 1)
p = plt.imshow(im, cmap='gray')
c = plt.colorbar(orientation='horizontal')
plt.clim(0, 255)

ax = fig.add_subplot(1, 2, 2)
p = plt.imshow(imexp, cmap='gray')
c = plt.colorbar(orientation='horizontal')
plt.clim(0, 255)
```

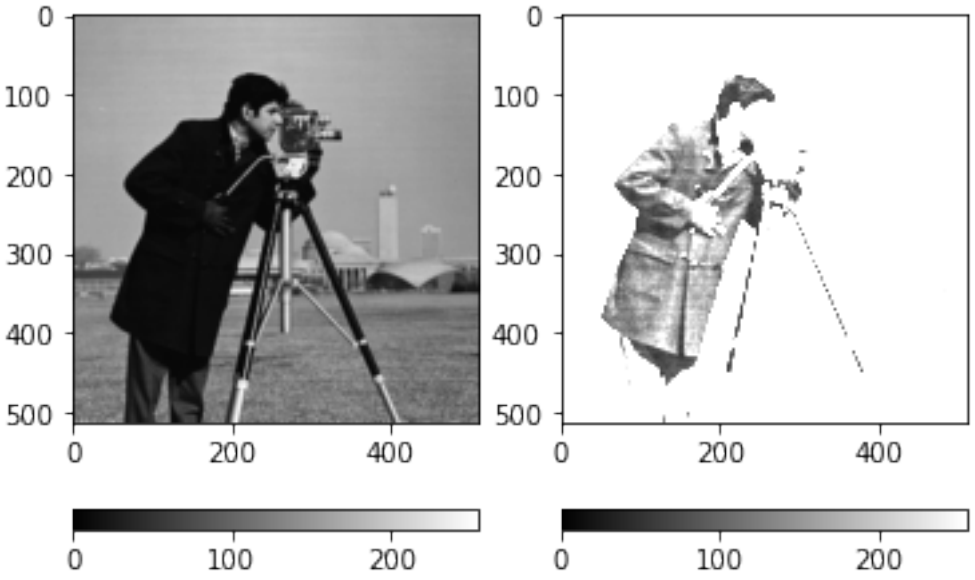


3 Power

[4]:
```
im = data.camera()
im = im.astype(np.float)
r = 2
c = 1
imp = c * np.power(im, r)

fig = plt.figure()
ax = fig.add_subplot(1, 2, 1)
p = plt.imshow(im, cmap='gray')
c = plt.colorbar(orientation='horizontal')
plt.clim(0, 255)

ax = fig.add_subplot(1, 2, 2)
p = plt.imshow(imp, cmap='gray')
c = plt.colorbar(orientation='horizontal')
plt.clim(0, 255)
```


0
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