Computer Vision Homework3

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Histogram equalization:

Step1:

Compute original image’s histogram

Step2:

According to Formula, compute each sk for k = 0,1,…,255

Sk=round(255\*(summation l=0 to k nl/N))

Step3:

Compute new image

Pixel (I,j)=k in ori image,pixel(I,j)=sk in new image

Step4:

Output new image and its histogram

Step2

for i in range(256):

tmp=0

for j in range(i+1):

tmp+=r[j]

tmp\*=255

tmp=tmp/float(height\*width)

s[i]=int(round(tmp))

step3

for i in range(height):

for j in range(width):

im.putpixel((j,i),s[im.getpixel((j,i))])

