

```
1 from PIL import Image
2 import numpy as np
3
4 im = Image.open("Lenna.jpg")
5 print(im.format)
6 print(im.size)
7 print(im.mode)
8
9 arr = np.array(im.copy())
10 print(type(arr))
11 print(arr.shape)
12
13 for y in range(arr.shape[0]):
14     for x in range(arr.shape[1]):
15         akum = (int(arr[y,x,0])+int(arr[y,x,1])+int(arr[y,x,2]))
16         tmp = max(min(int(akum/3),255),0)
17         arr[y,x] = [tmp,tmp,tmp]
18
19 im2 = Image.fromarray(arr)
20 print(im2.mode)
21 im3 = Image.fromarray(np.hstack((np.array(im),np.array(im2))))
22 im3.show()
```