

# CS 663 : Assignment-2

## 1) Image Sharpening:--

Code is written in python using opencv library to compute Gaussian blur for sharpening image.

Best Parameters :-- kernel\_size=(3,3)  
Variance or sigma=1  
amount = 5 for lion and 15 for moon image

Gaussian filter is generated using open cv.

Algorithm:--

```
def sharp_image(img_arr,amount,sigma,kernel_window_size):  
    blur_img=cv2.GaussianBlur(img_arr,kernel_window_size,sigma)  
    sharp_img=img_arr+(img_arr-blur_img)*amount
```

Results:--

a) Lion Image results

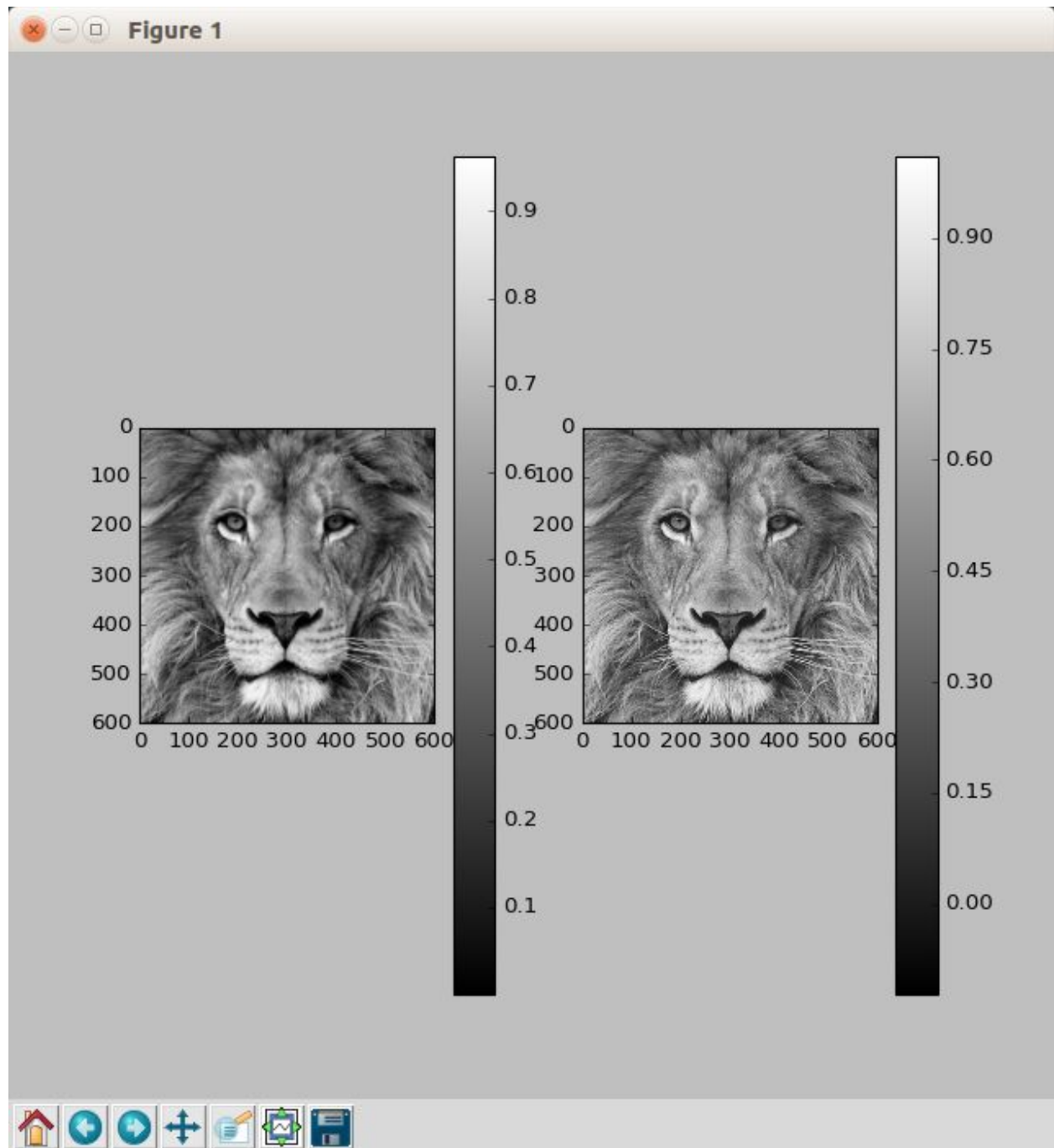


b) Moon Image results



Color Maps:--

Lion



Moon Color Map:--

