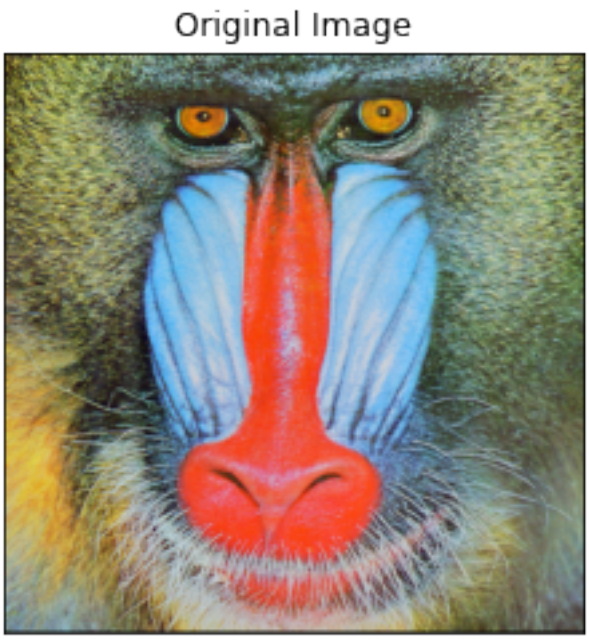
ex1

April 20, 2020

[2]:
```
import cv2
import numpy as np
from matplotlib import pyplot as plt
import copy
```

[3]:
```
inp_img = cv2.imread("./hw2_data/mandrill.png")
image = inp_img[:,:,::-1]
gaussian7 = image.copy()
gaussian21 = image.copy()
uniform = image.copy()

# cv2.imshow("Original", image)

gaussian7 = cv2.GaussianBlur(gaussian7,(7,7),3)
# cv2.imshow("gaussian 7x7", gaussian7)

gaussian21 = cv2.GaussianBlur(gaussian21,(21,21),10)
# cv2.imshow("gaussian 21x21", gaussian21)

# h = np.ones((21, 21)) / (21 ** 2)
uniform = cv2.blur(uniform, (21, 21))
# cv2.imshow("uniform blur", gaussian21)

# cv2.waitKey()
# cv2.destroyAllWindows()
```

[4]:
```
plt.imshow(image), plt.title('Original Image'), plt.xticks([]), plt.yticks([])
plt.show()
```



[5]:
```
plt.imshow(gaussian7), plt.title('gaussian 7x7'), plt.xticks([]), plt.yticks([])
plt.show()
```

[6]:
```
plt.imshow(gaussian21), plt.title('gaussian 21x21'), plt.xticks([]), plt.
 ↪yticks([])
plt.show()
```

[7]:
```
plt.imshow(uniform), plt.title('uniform blur'), plt.xticks([]), plt.yticks([])
plt.show()
```