

1 Python for Numerical Analysis 101

1.1 Homework

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1.2 Week 2 Lesson 3

1.3 HW

Why is `np.transpose(img, (1, 0, 2))` NOT the same as `np.rot90(img)`

##HW

Use a *for* loop to create the figures in the following code.

```
import matplotlib.pyplot as plt
from matplotlib.image import imread
import numpy as np
file_nm = "../images/ant_logo.png"
img = imread(file_nm) ## Note we do not have to close this
img.shape #(500,300,4) Look an alpha channel
# Lets view it But rotated
A = np.transpose(img, (1, 0, 2)).copy()
B = np.rot90(img).copy() ## We need to copy() here if we want a new object
plt.figure("A")
plt.imshow(A) #Make an image plot object
plt.figure("B")
plt.imshow(B) #Make an image plot object
plt.figure("Ant Logo")
plt.imshow(img)
plt.show() # Display it to screen
plt.close() # Make sure everything is closed
```

1.4 HW

When importing the following: `numpy` and `pandas`, what is the common alias used.

1.5 Solutions

You can do this!