Date 02-07-2021

In [1]:	<pre>import numpy as np import matplotlib.pyplot as plt import cv2</pre>
In [2]:	<pre>img_1=cv2.imread('dog_backpack.jpg') img_2=cv2.imread('watermark_no_copy.png') img_1=cv2.cvtColor(img_1,cv2.COLOR_BGR2RGB) img_2=cv2.cvtColor(img_2,cv2.COLOR_BGR2RGB)</pre>
In [3]:	<pre>plt.title(f"This image Shape = {img_1.shape}") plt.imshow(img_1)</pre>
Out[3]:	<matplotlib.image.axesimage 0x244fbc7f130="" at=""></matplotlib.image.axesimage>

This image Shape = (1401, 934, 3)

In [4]: plt.title(f"This image Shape = {img_2.shape}")

Out[4]: <matplotlib.image.AxesImage at 0x244fc242d00>

This image Shape = (1280, 1277, 3)

Blending Images of Same Size

img_1=cv2.resize(img_1,(1200,1200))

img_2=cv2.resize(img_2,(1200,1200))

In [7]: plt.title(f"Now Shape is = {img_1.shape}")

Out[7]: <matplotlib.image.AxesImage at 0x244fc2cc400>

Now Shape is = (1200, 1200, 3)

400 600 800 1000

In [8]: plt.title(f"Now Shape is = {img_2.shape}")

Out[8]: <matplotlib.image.AxesImage at 0x244fbcbe9a0>

Now Shape is = (1200, 1200, 3)

In [9]: blended_image = cv2.addWeighted(src1 = img_1,

Out[10]: <matplotlib.image.AxesImage at 0x244fc73f6d0>

400 600 800 1000

In [11]: blended_image = cv2.addWeighted(src1 = img_1,

Out[12]: <matplotlib.image.AxesImage at 0x244fc79d130>

In [13]: blended_image = cv2.addWeighted(src1 = img_1,

Out[14]: <matplotlib.image.AxesImage at 0x244fe16db20>

200 400 600 800 1000

img_2=cv2.imread('watermark_no_copy.png') img_1=cv2.cvtColor(img_1,cv2.COLOR_BGR2RGB) img_2=cv2.cvtColor(img_2,cv2.COLOR_BGR2RGB)

In [16]: plt.title(f"This image Shape = {img_1.shape}")

Out[16]: <matplotlib.image.AxesImage at 0x244fe1af430>

In [15]: img_1=cv2.imread('dog_backpack.jpg')

This image Shape = (1401, 934, 3)

0 250 500 750

plt.imshow(img_2)

In [17]: plt.title(f"This image Shape = {img_2.shape}")

Out[17]: <matplotlib.image.AxesImage at 0x244fc6e8040>

This image Shape = (1280, 1277, 3)

0 200 400 600 800 1000 1200

In [19]: img_1_large_image = img_1.copy()

plt.imshow(img_2_small_image)

Out[20]: <matplotlib.image.AxesImage at 0x244800116a0>

Now Shape is = (600, 600, 3)

100 200 300 400 500

In [23]: x_end = x_offset + img_2_small_image.shape[1]

Out[25]: <matplotlib.image.AxesImage at 0x244fbcc8d30>

In [24]: new_image = img_1_large_image.copy()

250 500 750

In [27]: x_end = x_offset + img_2_small_image.shape[1]

Out[29]: <matplotlib.image.AxesImage at 0x244fc2773d0>

0 250 500 750

y_end = y_offset + img_2_small_image.shape[0]

In [28]: new_image = img_1_large_image.copy()
 new_image[y_offset:y_end, x_offset:x_end] = img_2_small_image

y_end = y_offset + img_2_small_image.shape[0]

new_image[y_offset:y_end, x_offset:x_end] = img_2_small_image

In [18]: img_2_small_image = cv2.resize(img_2,(600,600)).copy()

In [20]: plt.title(f"Now Shape is = {img_2_small_image.shape}")

plt.imshow(img_1)

200

600

200

400

600

800

1000

1200

100

200 -

300 -

400

500 -

In [21]: $x_offset = 0$

Out[22]: (600, 600, 3)

1000

1200

1400

In [26]: $x_{offset} = 200$

 $y_offset = 350$

In [29]: plt.imshow(new_image)

200

400

600

800

 $y_offset = 0$

In [22]: img_2_small_image.shape

In [25]: plt.imshow(new_image)

alpha = .5, $src2 = img_2,$ beta = .5, gamma = 0)

alpha = 1, $src2 = img_2,$ beta = .6, gamma = 0)

alpha = .8, $src2 = img_2,$ beta = .1, gamma = 0)

Overlaying Small Images on Top of Large Images Using NumPy Ressignment

plt.imshow(img_2)

200

600

1200

200

400

600

800

1000

1200

200

1000

200

400

600

800

1000

In [10]: plt.imshow(blended_image)

200

400

600

800

1000

In [12]: plt.imshow(blended_image)

In [14]: plt.imshow(blended_image)

400

600

800

1000

200

400

600

800

1000

plt.imshow(img_2)

Blending and Pasting Images Part-1