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In [17]: from deepface import DeepFace
import cv2
import matplotlib.pyplot as plt
```

```
In [18]: model_name = "VGG-Face"
distance_metric = "cosine"
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```
In [21]: suspect_img = "Target\\DervisEmreAydin.jpg"
betaface_img1 = "BetaFace\\1.jpg"

Suspect_img = cv2.imread(suspect_img)
Betaface_img1 = cv2.imread(betaface_img1)

fig = plt.figure()
ax1 = fig.add_subplot(2,2,1)
ax1.imshow(Suspect_img[:,:,:-1])
ax2 = fig.add_subplot(2,2,2)
ax2.imshow(Betaface_img1[:,:,:-1])

verify1_VGG= DeepFace.verify(suspect_img, betaface_img1,
                             model_name= "VGG-Face",
                             distance_metric= "cosine")

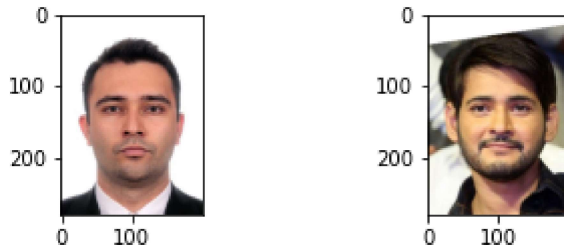
verify1_VGG_list = [verify1_VGG.get('distance'),
                    verify1_VGG.get('model'),
                    verify1_VGG.get('similarity_metric')]

verify1_Facenet= DeepFace.verify(suspect_img, betaface_img1,
                                 model_name= "Facenet",
                                 distance_metric= "euclidean_l2")

verify1_Facenet_list = [verify1_Facenet.get('distance'),
                        verify1_Facenet.get('model'),
                        verify1_Facenet.get('similarity_metric')]

print(verify1_VGG_list)
print(verify1_Facenet_list)
```

```
[0.30944469366747784, 'VGG-Face', 'cosine']
[0.9104436121403322, 'Facenet', 'euclidean_l2']
```



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In [22]: suspect_img = "Target\\DervisEmreAydin.jpg"
betaface_img2 = "BetaFace\\2.jpg"

Suspect_img = cv2.imread(suspect_img)
Betaface_img2 = cv2.imread(betaface_img2)

fig = plt.figure()
ax1 = fig.add_subplot(2,2,1)
ax1.imshow(Suspect_img[:,:,:-1])
```

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ax2 = fig.add_subplot(2,2,2)
ax2.imshow(Betaface_img2[:, :, :-1])

verify2_VGG= DeepFace.verify(suspect_img, betaface_img2,
                              model_name= "VGG-Face",
                              distance_metric= "cosine")

verify2_VGG_list = [verify2_VGG.get('distance'),
                    verify2_VGG.get('model'),
                    verify2_VGG.get('similarity_metric')]

verify2_Facenet= DeepFace.verify(suspect_img, betaface_img2,
                                  model_name= "Facenet",
                                  distance_metric= "euclidean_l2")

verify2_Facenet_list = [verify2_Facenet.get('distance'),
                        verify2_Facenet.get('model'),
                        verify2_Facenet.get('similarity_metric')]

print(verify2_VGG_list)
print(verify2_Facenet_list)

```

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[0.33102007977987324, 'VGG-Face', 'cosine']
[1.0300502232076016, 'Facenet', 'euclidean_l2']

```



In [23]:

```

suspect_img = "Target\\DervisEmreAydin.jpg"
betaface_img3 = "BetaFace\\3.jpg"

Suspect_img = cv2.imread(suspect_img)
Betaface_img3 = cv2.imread(betaface_img3)

fig = plt.figure()
ax1 = fig.add_subplot(2,2,1)
ax1.imshow(Suspect_img[:, :, :-1])
ax2 = fig.add_subplot(2,2,2)
ax2.imshow(Betaface_img3[:, :, :-1])

verify3_VGG= DeepFace.verify(suspect_img, betaface_img3,
                              model_name= "VGG-Face",
                              distance_metric= "cosine")

verify3_VGG_list = [verify3_VGG.get('distance'),
                    verify3_VGG.get('model'),
                    verify3_VGG.get('similarity_metric')]

verify3_Facenet= DeepFace.verify(suspect_img, betaface_img3,
                                  model_name= "Facenet",
                                  distance_metric= "euclidean_l2")

verify3_Facenet_list = [verify3_Facenet.get('distance'),
                        verify3_Facenet.get('model'),
                        verify3_Facenet.get('similarity_metric')]

print(verify3_VGG_list)
print(verify3_Facenet_list)

```

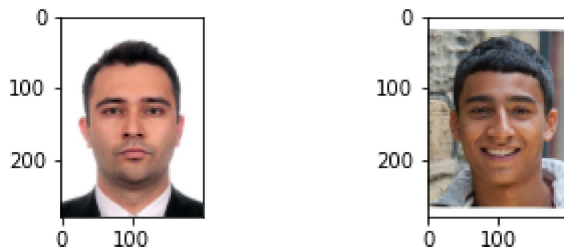
```
[0.23861789867866767, 'VGG-Face', 'cosine']  
[1.021729940103321, 'Facenet', 'euclidean_l2']
```



In [24]:

```
suspect_img = "Target\\DervisEmreAydin.jpg"  
betaface_img4 = "BetaFace\\4.jpg"  
  
Suspect_img = cv2.imread(suspect_img)  
Betaface_img4 = cv2.imread(betaface_img4)  
  
fig = plt.figure()  
ax1 = fig.add_subplot(2,2,1)  
ax1.imshow(Suspect_img[:,:,:-1])  
ax2 = fig.add_subplot(2,2,2)  
ax2.imshow(Betaface_img4[:,:,:-1])  
  
verify4_VGG= DeepFace.verify(suspect_img, betaface_img4,  
                              model_name= "VGG-Face",  
                              distance_metric= "cosine")  
  
verify4_VGG_list = [verify4_VGG.get('distance'),  
                    verify4_VGG.get('model'),  
                    verify4_VGG.get('similarity_metric')]  
  
verify4_Facenet= DeepFace.verify(suspect_img, betaface_img4,  
                                 model_name= "Facenet",  
                                 distance_metric= "euclidean_l2")  
  
verify4_Facenet_list = [verify4_Facenet.get('distance'),  
                        verify4_Facenet.get('model'),  
                        verify4_Facenet.get('similarity_metric')]  
  
print(verify4_VGG_list)  
print(verify4_Facenet_list)
```

```
[0.3520589814705143, 'VGG-Face', 'cosine']  
[1.0686986150275701, 'Facenet', 'euclidean_l2']
```



In [25]:

```
suspect_img = "Target\\DervisEmreAydin.jpg"  
betaface_img5 = "BetaFace\\5.jpg"  
  
Suspect_img = cv2.imread(suspect_img)  
Betaface_img5 = cv2.imread(betaface_img5)  
  
fig = plt.figure()  
ax1 = fig.add_subplot(2,2,1)
```

```

ax1.imshow(Suspect_img[:,:,:-1])
ax2 = fig.add_subplot(2,2,2)
ax2.imshow(Betaface_img5[:,:,:-1])

verify5_VGG= DeepFace.verify(suspect_img, betaface_img5,
                              model_name= "VGG-Face",
                              distance_metric= "cosine")

verify5_VGG_list = [verify5_VGG.get('distance'),
                    verify5_VGG.get('model'),
                    verify5_VGG.get('similarity_metric')]

verify5_Facenet= DeepFace.verify(suspect_img, betaface_img5,
                                  model_name= "Facenet",
                                  distance_metric= "euclidean_l2")

verify5_Facenet_list = [verify5_Facenet.get('distance'),
                        verify5_Facenet.get('model'),
                        verify5_Facenet.get('similarity_metric')]

print(verify5_VGG_list)
print(verify5_Facenet_list)

```

```

[0.2422080625186973, 'VGG-Face', 'cosine']
[0.9236730031667729, 'Facenet', 'euclidean_l2']

```



In [26]:

```

suspect_img = "Target\\DervisEmreAydin.jpg"
betaface_img6 = "BetaFace\\6.jpg"

Suspect_img = cv2.imread(suspect_img)
Betaface_img6 = cv2.imread(betaface_img6)

fig = plt.figure()
ax1 = fig.add_subplot(2,2,1)
ax1.imshow(Suspect_img[:,:,:-1])
ax2 = fig.add_subplot(2,2,2)
ax2.imshow(Betaface_img6[:,:,:-1])

verify6_VGG= DeepFace.verify(suspect_img, betaface_img6,
                              model_name= "VGG-Face",
                              distance_metric= "cosine")

verify6_VGG_list = [verify6_VGG.get('distance'),
                    verify6_VGG.get('model'),
                    verify6_VGG.get('similarity_metric')]

verify6_Facenet= DeepFace.verify(suspect_img, betaface_img6,
                                  model_name= "Facenet",
                                  distance_metric= "euclidean_l2")

verify6_Facenet_list = [verify6_Facenet.get('distance'),
                        verify6_Facenet.get('model'),
                        verify6_Facenet.get('similarity_metric')]

```

```
print(verify6_VGG_list)
print(verify6_Facenet_list)
```

```
[0.21714867479128974, 'VGG-Face', 'cosine']
[1.0231189888364463, 'Facenet', 'euclidean_l2']
```



In [27]:

```
suspect_img = "Target\\DervisEmreAydin.jpg"
betaface_img7 = "BetaFace\\7.jpg"

Suspect_img = cv2.imread(suspect_img)
Betaface_img7 = cv2.imread(betaface_img7)

fig = plt.figure()
ax1 = fig.add_subplot(2,2,1)
ax1.imshow(Suspect_img[:,:,:-1])
ax2 = fig.add_subplot(2,2,2)
ax2.imshow(Betaface_img7[:,:,:-1])

verify7_VGG= DeepFace.verify(suspect_img, betaface_img7,
                              model_name= "VGG-Face",
                              distance_metric= "cosine")

verify7_VGG_list = [verify7_VGG.get('distance'),
                    verify7_VGG.get('model'),
                    verify7_VGG.get('similarity_metric')]

verify7_Facenet= DeepFace.verify(suspect_img, betaface_img7,
                                 model_name= "Facenet",
                                 distance_metric= "euclidean_l2")

verify7_Facenet_list = [verify7_Facenet.get('distance'),
                        verify7_Facenet.get('model'),
                        verify7_Facenet.get('similarity_metric')]

print(verify7_VGG_list)
print(verify7_Facenet_list)
```

```
[0.2644274870354848, 'VGG-Face', 'cosine']
[0.9693951155356866, 'Facenet', 'euclidean_l2']
```



In [28]:

```
suspect_img = "Target\\DervisEmreAydin.jpg"
betaface_img8 = "BetaFace\\8.jpg"

Suspect_img = cv2.imread(suspect_img)
Betaface_img8 = cv2.imread(betaface_img8)
```

```

fig = plt.figure()
ax1 = fig.add_subplot(2,2,1)
ax1.imshow(Suspect_img[:,:,:-1])
ax2 = fig.add_subplot(2,2,2)
ax2.imshow(Betaface_img8[:,:,:-1])

verify8_VGG= DeepFace.verify(suspect_img, betaface_img8,
                             model_name= "VGG-Face",
                             distance_metric= "cosine")

verify8_VGG_list = [verify8_VGG.get('distance'),
                    verify8_VGG.get('model'),
                    verify8_VGG.get('similarity_metric')]

verify8_Facenet= DeepFace.verify(suspect_img, betaface_img8,
                                 model_name= "Facenet",
                                 distance_metric= "euclidean_l2")

verify8_Facenet_list = [verify8_Facenet.get('distance'),
                        verify8_Facenet.get('model'),
                        verify8_Facenet.get('similarity_metric')]

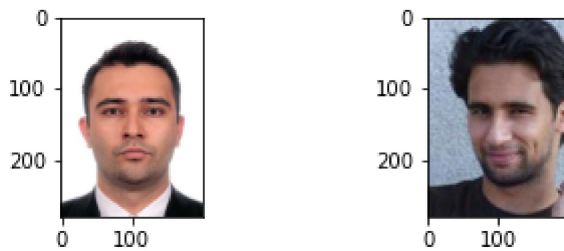
print(verify8_VGG_list)
print(verify8_Facenet_list)

```

```

[0.3717759770242487, 'VGG-Face', 'cosine']
[1.187602314661086, 'Facenet', 'euclidean_l2']

```



In [29]:

```

suspect_img = "Target\\DervisEmreAydin.jpg"
betaface_img9 = "BetaFace\\9.jpg"

Suspect_img = cv2.imread(suspect_img)
Betaface_img9 = cv2.imread(betaface_img9)

fig = plt.figure()
ax1 = fig.add_subplot(2,2,1)
ax1.imshow(Suspect_img[:,:,:-1])
ax2 = fig.add_subplot(2,2,2)
ax2.imshow(Betaface_img9[:,:,:-1])

verify9_VGG= DeepFace.verify(suspect_img, betaface_img9,
                             model_name= "VGG-Face",
                             distance_metric= "cosine")

verify9_VGG_list = [verify9_VGG.get('distance'),
                    verify9_VGG.get('model'),
                    verify9_VGG.get('similarity_metric')]

verify9_Facenet= DeepFace.verify(suspect_img, betaface_img9,
                                 model_name= "Facenet",
                                 distance_metric= "euclidean_l2")

verify9_Facenet_list = [verify9_Facenet.get('distance'),
                        verify9_Facenet.get('model'),
                        verify9_Facenet.get('similarity_metric')]

```

```
print(verify9_VGG_list)
print(verify9_Facenet_list)
```

```
[0.44614565943766704, 'VGG-Face', 'cosine']
[1.1519312202558205, 'Facenet', 'euclidean_l2']
```



In [30]:

```
suspect_img = "Target\\DervisEmreAydin.jpg"
betaface_img10 = "BetaFace\\10.jpg"

Suspect_img = cv2.imread(suspect_img)
Betaface_img10 = cv2.imread(betaface_img10)

fig = plt.figure()
ax1 = fig.add_subplot(2,2,1)
ax1.imshow(Suspect_img[:,:,:-1])
ax2 = fig.add_subplot(2,2,2)
ax2.imshow(Betaface_img10[:,:,:-1])

verify10_VGG= DeepFace.verify(suspect_img, betaface_img10,
                               model_name= "VGG-Face",
                               distance_metric= "cosine")

verify10_VGG_list = [verify10_VGG.get('distance'),
                     verify10_VGG.get('model'),
                     verify10_VGG.get('similarity_metric')]

verify10_Facenet= DeepFace.verify(suspect_img, betaface_img10,
                                  model_name= "Facenet",
                                  distance_metric= "euclidean_l2")

verify10_Facenet_list = [verify10_Facenet.get('distance'),
                         verify10_Facenet.get('model'),
                         verify10_Facenet.get('similarity_metric')]

print(verify10_VGG_list)
print(verify10_Facenet_list)
```

```
[0.44481162283828046, 'VGG-Face', 'cosine']
[1.165845047826171, 'Facenet', 'euclidean_l2']
```

