

```
In [3]: from keras.preprocessing.image import ImageDataGenerator, array_to_img, img_to_array, load_img
```

```
In [19]: datagen = ImageDataGenerator(rotation_range=40,  
                                     width_shift_range=0.2,  
                                     height_shift_range=0.2,  
                                     shear_range=0.2,  
                                     horizontal_flip=True)
```

```
In [20]: img = load_img("download.png")  
img
```

Out[20]:





```
In [21]: x = img_to_array(img)
         x.shape
```

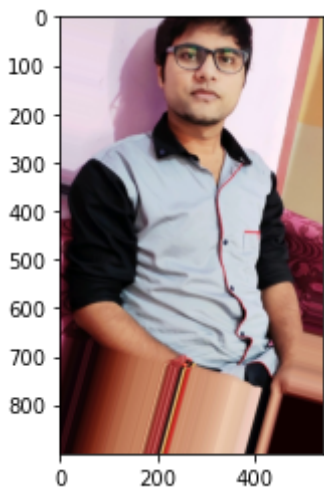
```
Out[21]: (900, 541, 3)
```

```
In [22]: x_resaped = x.reshape((1,)+ x.shape)
         x_resaped.shape
```

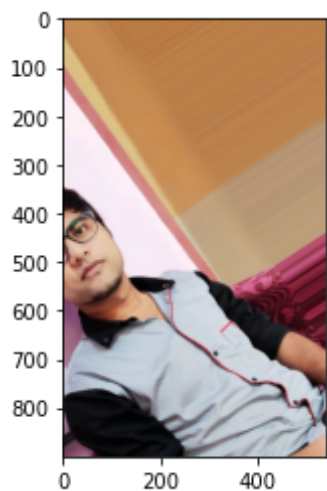
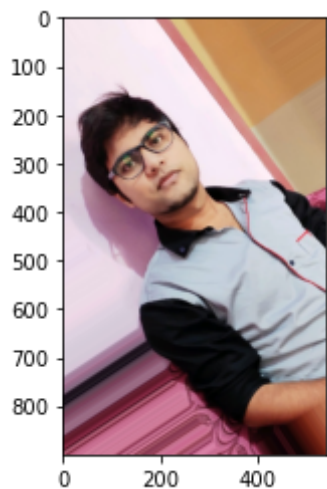
```
Out[22]: (1, 900, 541, 3)
```

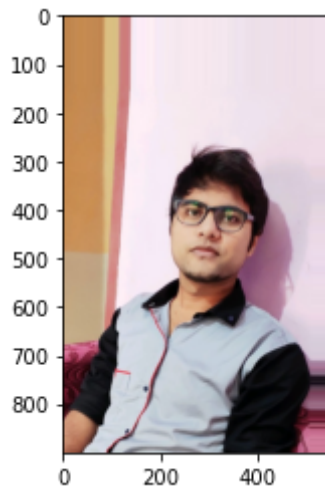
```
In [23]: import matplotlib.pyplot as plt
```

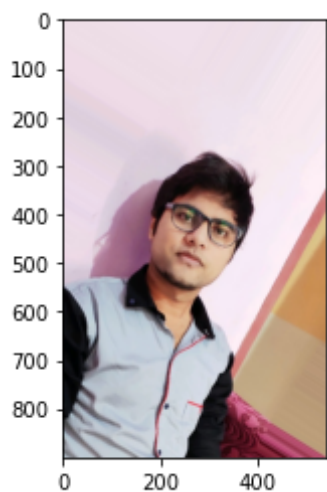
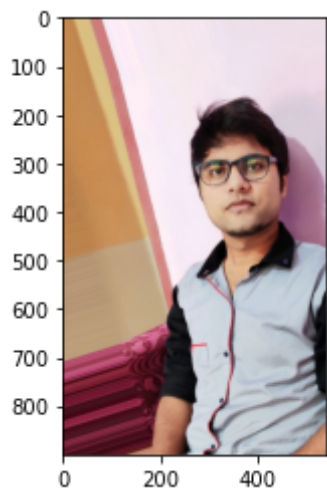
```
In [24]: i = 0
for batch in datagen.flow(x_resaped,batch_size=1):
    plt.figure(i)
    img_plot = plt.imshow(array_to_img(batch[0]))
    i = i+1
    if (i > 10):
        break
plt.show()
```

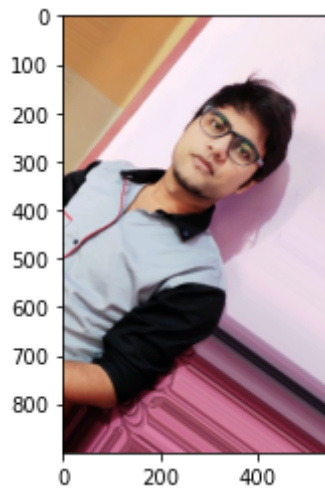












In []: