PNT2022TMID50812

Image Preprocessing

Applying ImageDataGenerator Functionality To Train And Test Set from tensorflow.keras.preprocessing.image import ImageDataGenerator

# Testing Datagen test\_datagen = ImageDataGenerator(rescale=1/255)

# Training Datagen

train\_datagen =

ImageDataGenerator(rescale=1/255,zoom\_range=0.2,horizontal\_flip=True,vertical\_flip=False)

# Training Dataset

x\_train=train\_datagen.flow\_from\_directory(r'/content/drive/MyDrive/Dataset/training\_set',target\_size =(64,64), class\_mode='categorical',batch\_size=900)

# Testing Dataset

x\_test=test\_datagen.flow\_from\_directory(r'/content/drive/MyDrive/Dataset/test\_set',target\_size=(64,6

4), class\_mode='categorical',batch\_size=900) print("Len x-train : ",len(x\_train)) print("Len x-test : ", len(x\_test)) # The Class Indices in Training Dataset x\_train.class\_indices traindf=pd.read\_csv('/content/drive/images\_and\_labels.txt',dtype=str,sep='\s') traindf.columns = ['image','label','none1','none2','none3'] traindf.drop(['none1', 'none2','none3'], axis=1) datagen=ImageDataGenerator(rescale=1./255.,validation\_split=0.25) train\_generator=datagen.flow\_from\_dataframe

(

dataframe=traindf, directory="/content/drive/", x\_col="image", y\_col="label", subset="training", batch\_size=32, seed=42, shuffle=True, class\_mode="categorical", target\_size=(150,150)

)

validation\_generator=datagen.flow\_from\_dataframe

(

dataframe=traindf, directory="/content/drive/", x\_col="image", y\_col="label", subset="validation", batch\_size=32, seed=42, shuffle=True, class\_mode="categorical", target\_size=(150,150)

)