Classification Of Arrhythmia By Using Deep Learning With 2-D ECG Spectral Image Representation

MODEL BUILDING

IMPORTING THE MODEL BUILDING LIBRARIES

| Team ID | PNT2022TMID16055 | |
|--------------|---|--|
| Project Name | Classification Of Arrhythmia By Using Deep Learning With 2-D ECG Spectral Image Representation | |

IMPORTING THE MODEL BUILDING LIBRARIES:

Import the libraries that are required to initialize the neural network layer, create and add different layers to the neural network model. The below libraries are imported and executed.

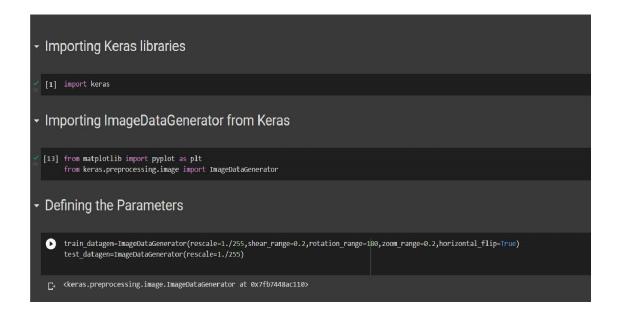
11/7/22, 12:35 AM Untitled8.ipynb - Colaboratory

Importing Keras libraries

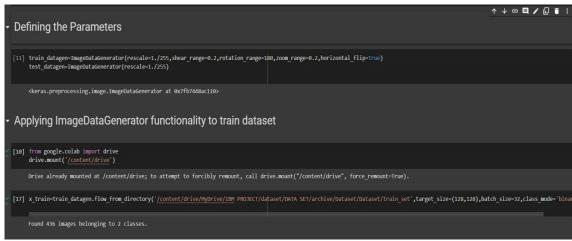
import keras

Importing ImageDataGenerator from Keras

from keras.preprocessing.image import ImageDataGenerator



APPLYING ImageDataGenerator to train dataset:



plyflow_from_directory ()methodfor Train folder.

APPLYING ImageDataGenerator to test dataset:

Applying the **flow_from_directory** () methodfortest folder.

| Applying ImageDataGenerator functionality to test dataset | | | | |
|---|---|---|-----------------------|--|
| | | ↑ ↓ · | ලෙම් 🗘 🗓 📋 : | |
| | 0 | x_test-test_datagen.flow_from_directory('/content/drive/MyOrive/IBM PROJECT/dataset/DATA SET/archive/Dataset/Dataset/test_set',target_size-(128,128),batch_size-32_ | ,class_mode='binary') | |
| | | Found 121 images belonging to 2 classes. | | |
| | | | | |
| | | | | |

IMPORTING MODEL BUILDING LIBRARIES:

11/8/22, 1:16 AM

Main code - Colaboratory

→ Importing Model Building Libraries

```
#to define the linear Initialisation import sequential
from keras.models import Sequential
#to add layers import Dense
from keras.layers import Dense
#to create Convolutional kernel import convolution2D
from keras.layers import Convolution2D
#import Maxpooling layer
from keras.layers import MaxPooling2D
#import flatten layer
from keras.layers import Flatten
import warnings
warnings.filterwarnings('ignore')
```