

Team id	PNT2022TMID45689
Project name	Classification of Arrhythmia by Using Deep Learning with 2-D ECG Spectral Image Representation

Accuracy Screenshot

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[ ] model.fit(x_train,epochs=1,steps_per_epoch=len(x_train),validation_data=x_test,validation_steps=len(x_test))

120/120 [=====] - 182s 2s/step - loss: 0.1781 - accuracy: 0.9447 - val_loss: 0.5165 - val_accuracy: 0.8362
<keras.callbacks.History at 0x7efd403a8150>

[ ] history=model.fit(x_train,epochs=1,steps_per_epoch=len(x_train),validation_data=x_test,validation_steps=len(x_test))

120/120 [=====] - 138s 1s/step - loss: 0.0979 - accuracy: 0.9687 - val_loss: 0.5897 - val_accuracy: 0.8620

[ ] model.fit(x_train,epochs=5,steps_per_epoch=len(x_train),validation_data=x_test,validation_steps=len(x_test))

Epoch 1/5
120/120 [=====] - 132s 1s/step - loss: 0.0981 - accuracy: 0.9686 - val_loss: 0.5342 - val_accuracy: 0.8716
Epoch 2/5
120/120 [=====] - 127s 1s/step - loss: 0.0900 - accuracy: 0.9727 - val_loss: 0.6108 - val_accuracy: 0.8668
Epoch 3/5
120/120 [=====] - 126s 1s/step - loss: 0.0926 - accuracy: 0.9725 - val_loss: 0.6126 - val_accuracy: 0.8637
Epoch 4/5
120/120 [=====] - 127s 1s/step - loss: 0.0836 - accuracy: 0.9737 - val_loss: 0.5963 - val_accuracy: 0.8623
Epoch 5/5
120/120 [=====] - 129s 1s/step - loss: 0.0743 - accuracy: 0.9756 - val_loss: 0.4265 - val_accuracy: 0.8923
<keras.callbacks.History at 0x7f86683d350>

Save the model

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Summary screenshot

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[ ] model.add(Flatten())

[ ] model.summary()

Model: "sequential"
Layer (type)                Output Shape                Param #
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conv2d (Conv2D)              (None, 62, 62, 32)         896
max_pooling2d (MaxPooling2D) (None, 31, 31, 32)         0
flatten (Flatten)            (None, 30752)              0

Total params: 896
Trainable params: 896
Non-trainable params: 0

```