## Results for Method#2 - Semi-Supervised Method (LSTM encoder decoder)

| Record | Training Loss | # beats for Testing | MAE Threshold | Test Accuracy(%) |
|---|---|---|---|---|
| 116 | 0.0186 | 109 | 8.24 | 98.16 |
| 215 | 0.0048 | 164 | 5.22 | 98.78 |
| 210 | 0.0040 | 195 | 6.05 | 96.67 |
| 233 | 0.0063 | 830 | 19.79 | 88.73 |
| 214 | 0.0063 | 256 | 9.07 | 93.36 |
| 228 | 0.0032 | 362 | 6.59 | 98.34 |
| 221 | 0.0062 | 396 | 4.40 | 98.98 |
| 119 | 0.0076 | 444 | 6.59 | 98.98 |
| 203 | 0.0198 | 444 | 20.34 | 88.28 |
| 106 | 0.0190 | 520 | 7.69 | 97.98 |
| **Average** | | | | **95.826** |

**LSTM Encoder-Decoder Model**

```
Model: "sequential_6"

_____
Layer (type)                    Output Shape            Param #
===============================================================
lstm_12 (LSTM)                  (None, 64)              16896

_____
repeat_vector_6 RepeatVector (None, 64, 64)             0

_____
lstm_13 (LSTM)                  (None, 64, 64)          33024

_____
time_distributed_6 (TimeDist (None, 64, 1)              65
===============================================================
Total params: 49,985
Trainable params: 49,985
Non-trainable params: 0

_____
None
```

**REC: mitdb/116**

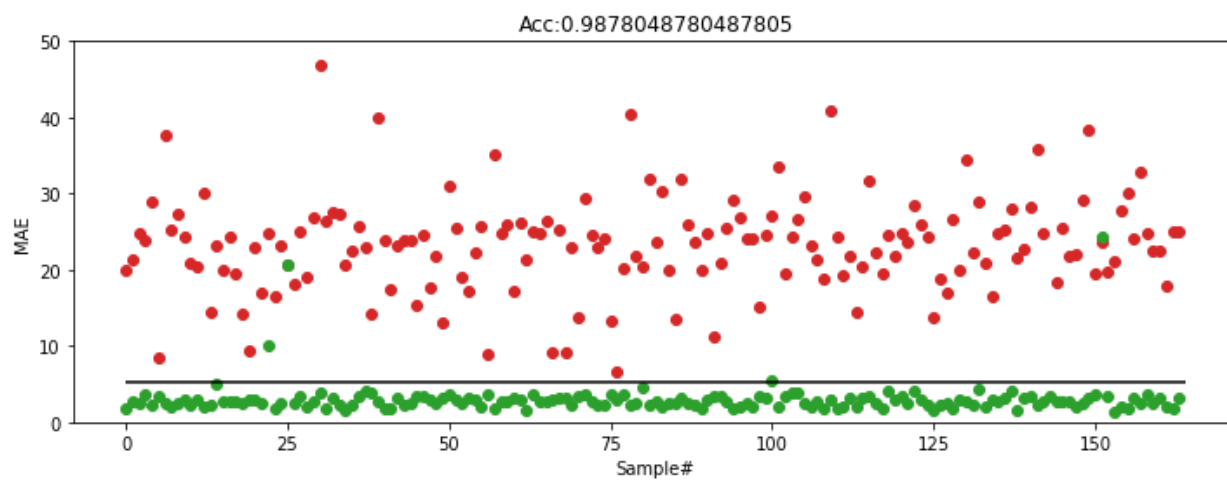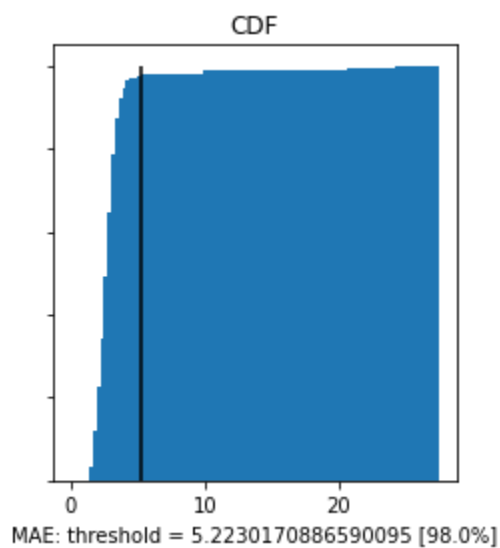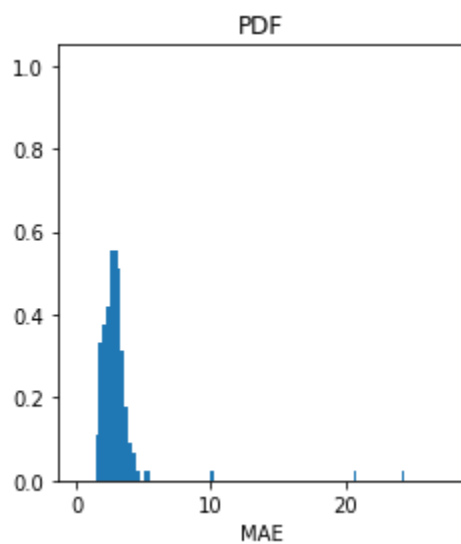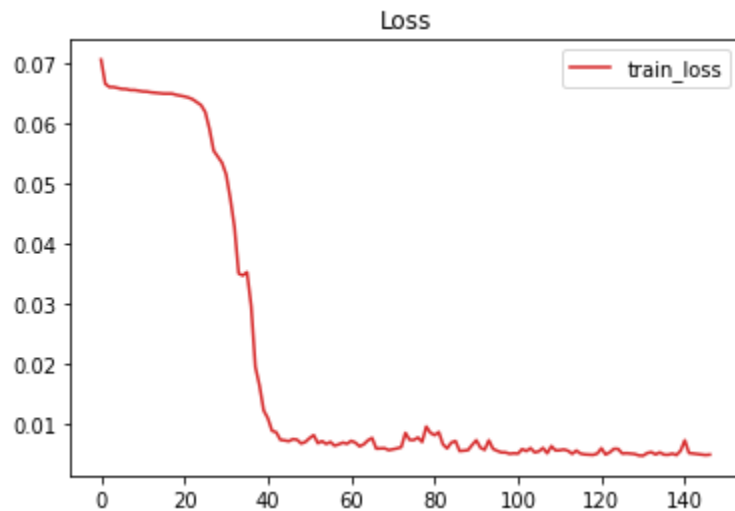Training Loss: 0.0186 [Epoch 00219: early stopping]

Beats used for Testing: 109 x 2

## Loss



## PDF

## CDF

MAE: threshold = 8.24686908735633 [98.0%]

Acc:0.981651376146789
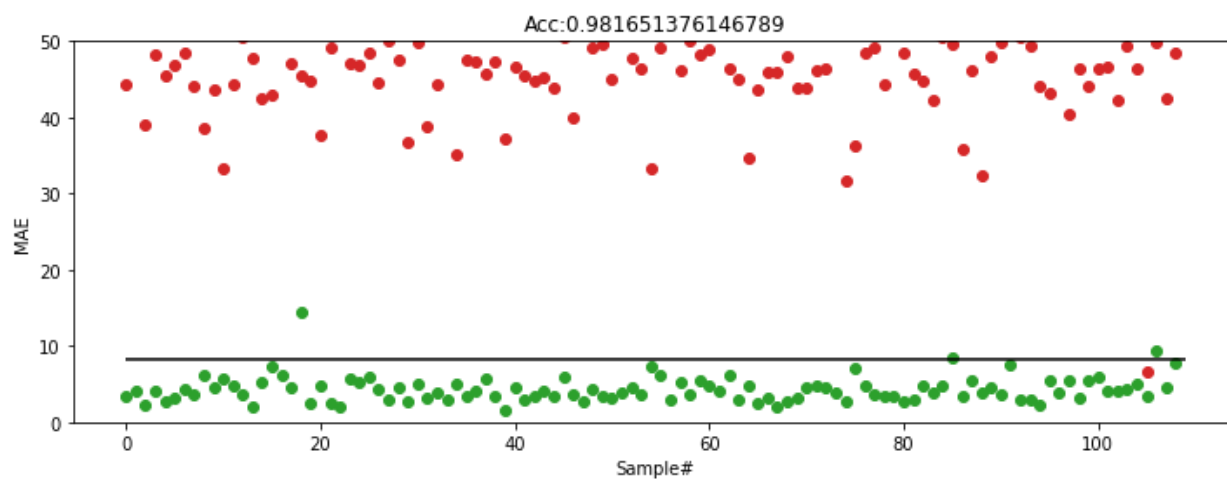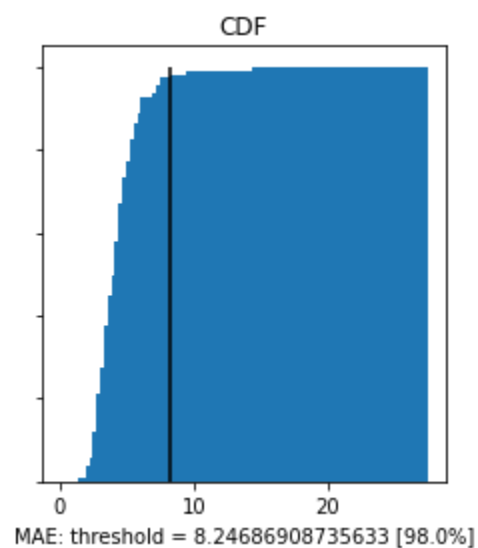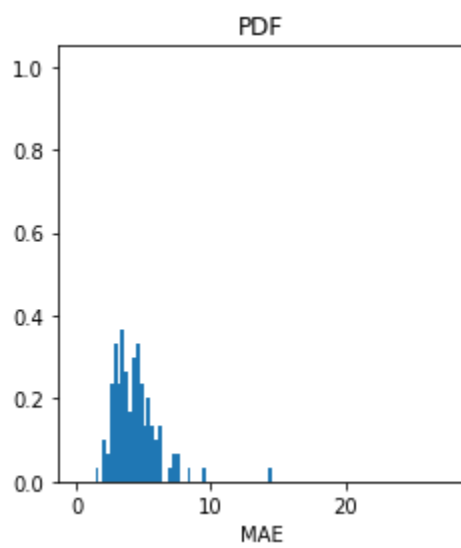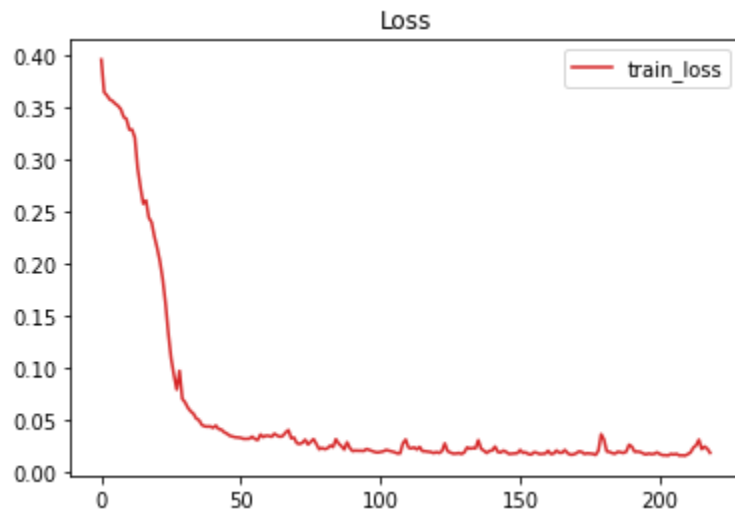
**REC: mitdb/215**

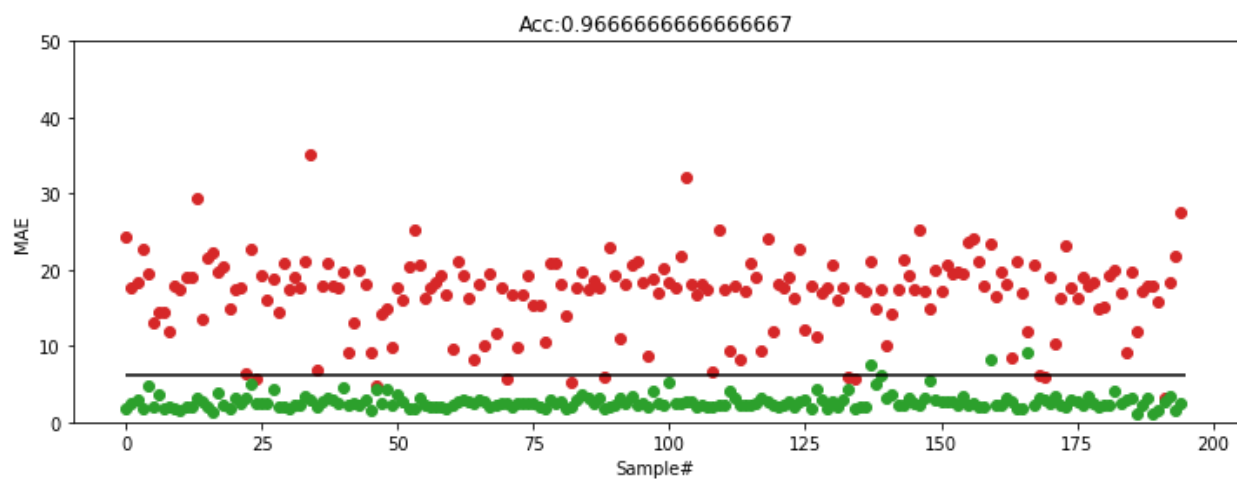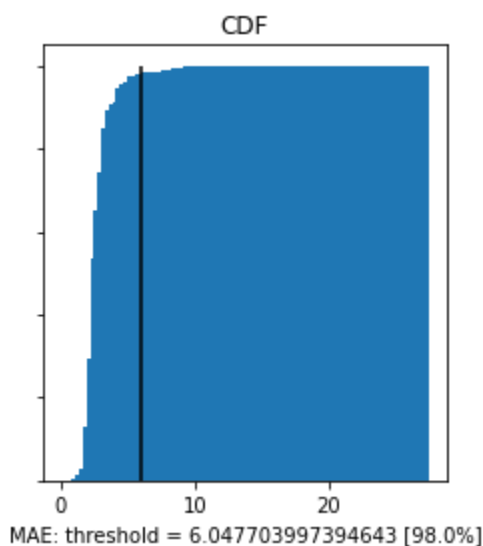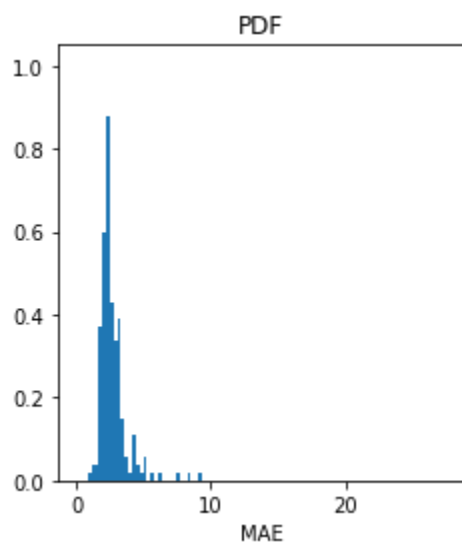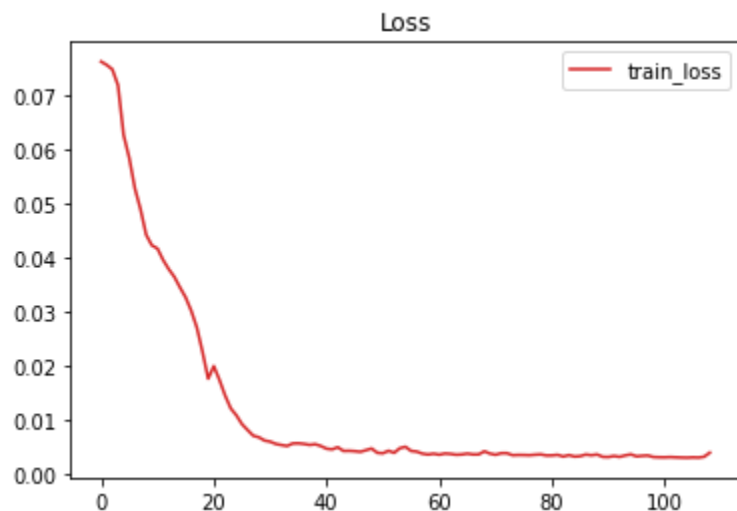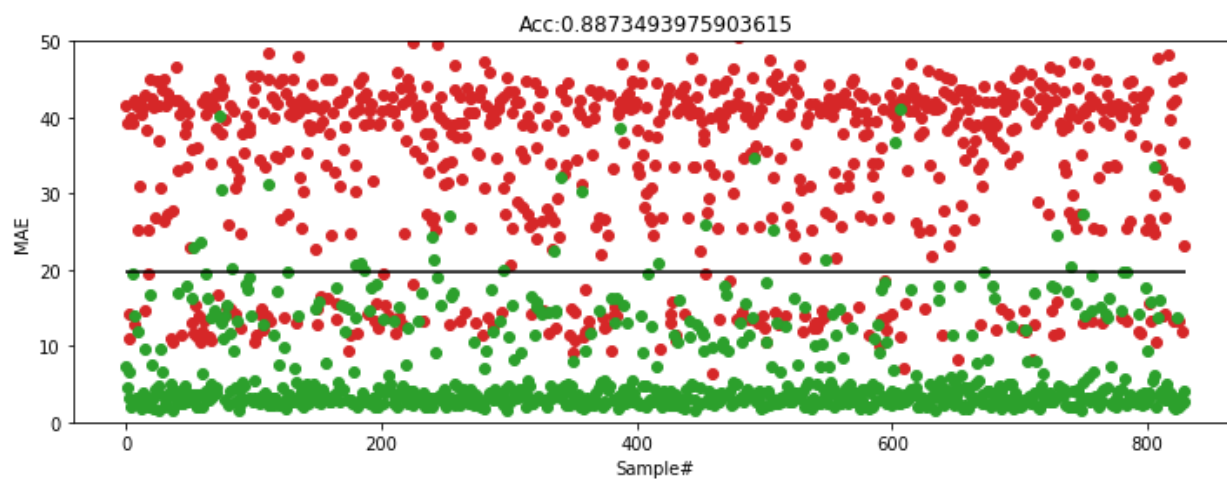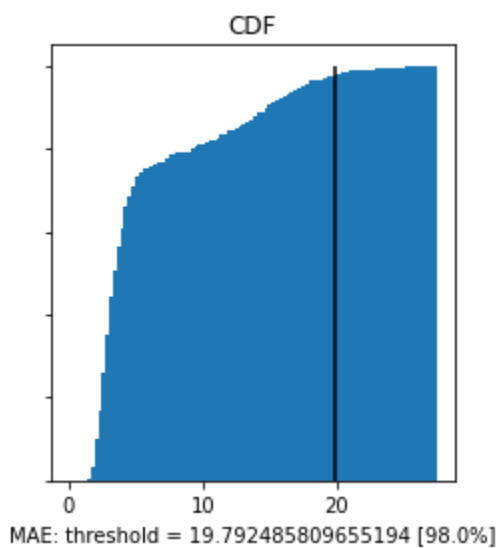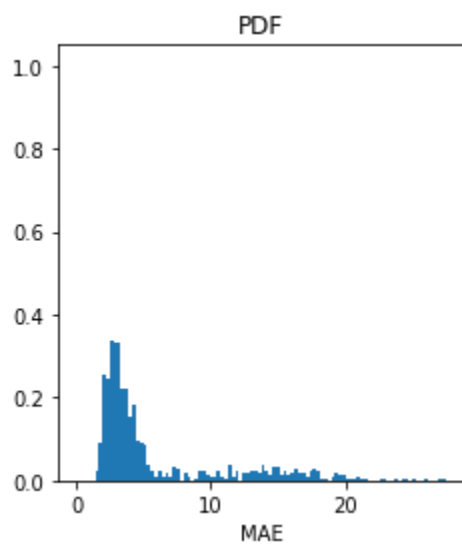Training Loss: 0.0048 [Epoch 00147: early stopping]

Beats used for Testing: 164 x 2

**REC: mitdb/210**

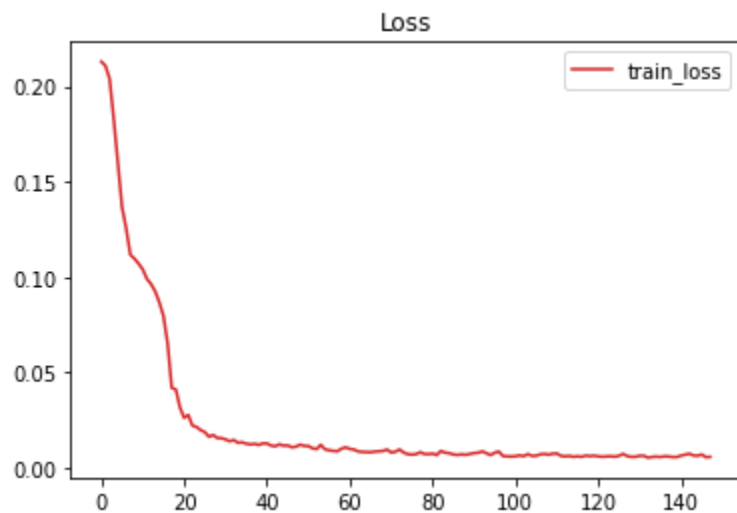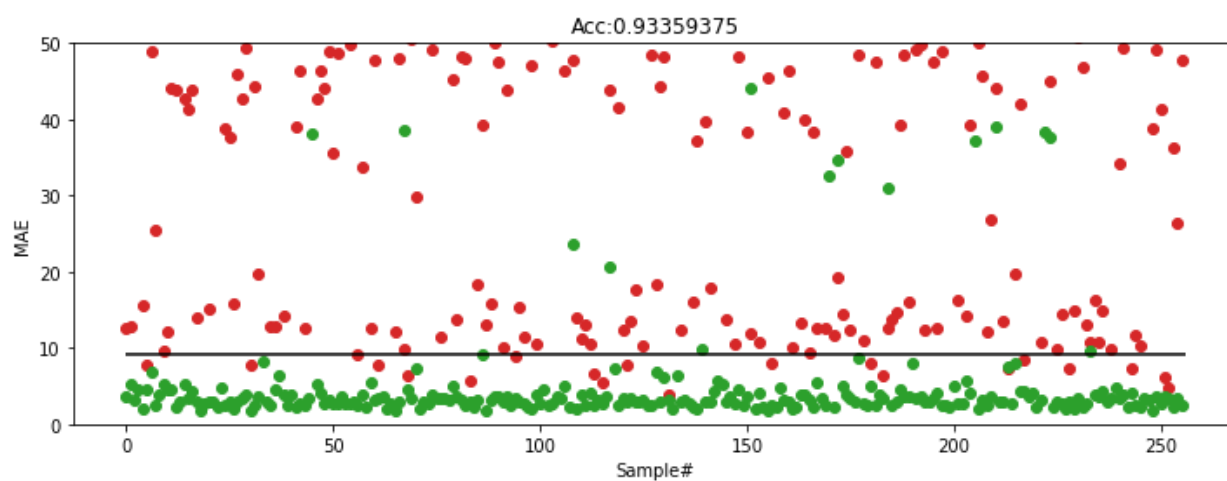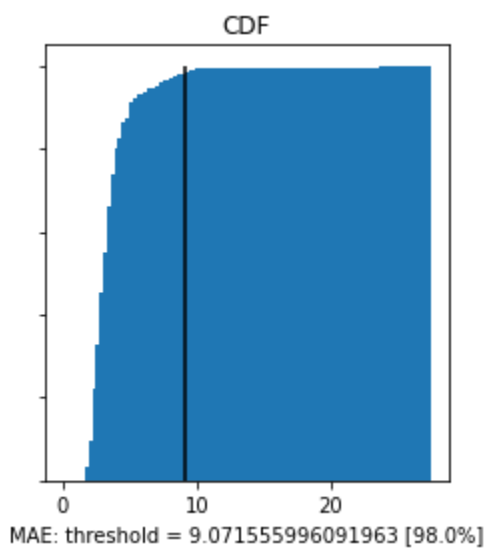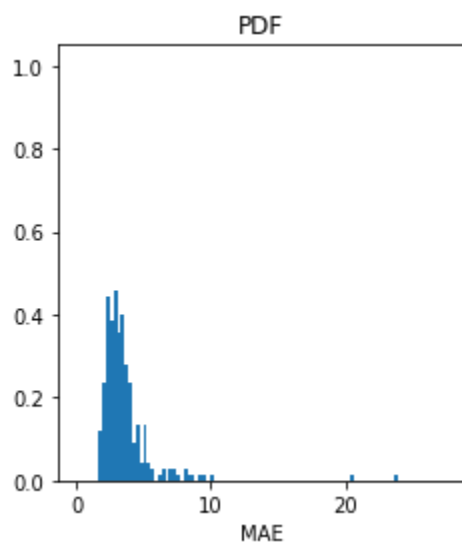Training Loss: 0.0040 [Epoch 00109: early stopping]

Beats used for Testing: 195 x 2



Loss



PDF



CDF

MAE: threshold = 6.047703997394643 [98.0%]



Acc:0.9666666666666667

**REC: mitdb/233**
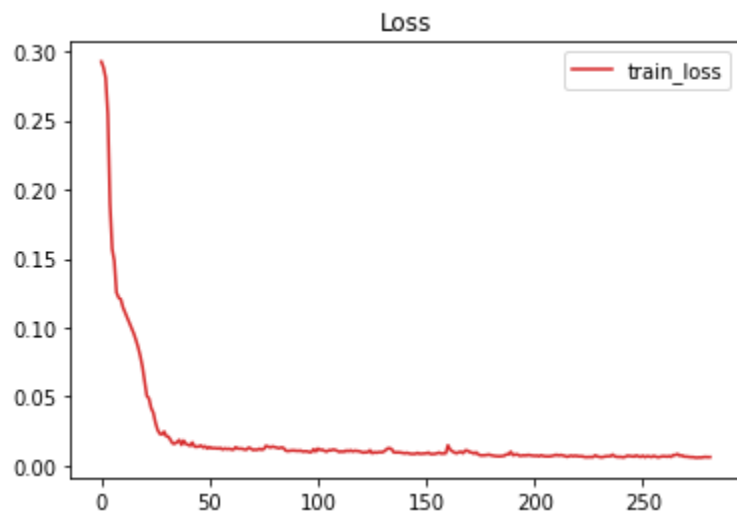
Training Loss: 0.0063 [Epoch 00148: early stopping]

Beats used for Testing: 830 x 2



Loss

PDF

CDF

MAE: threshold = 19.792485809655194 [98.0%]

Acc:0.8873493975903615

**REC: mitdb/214**

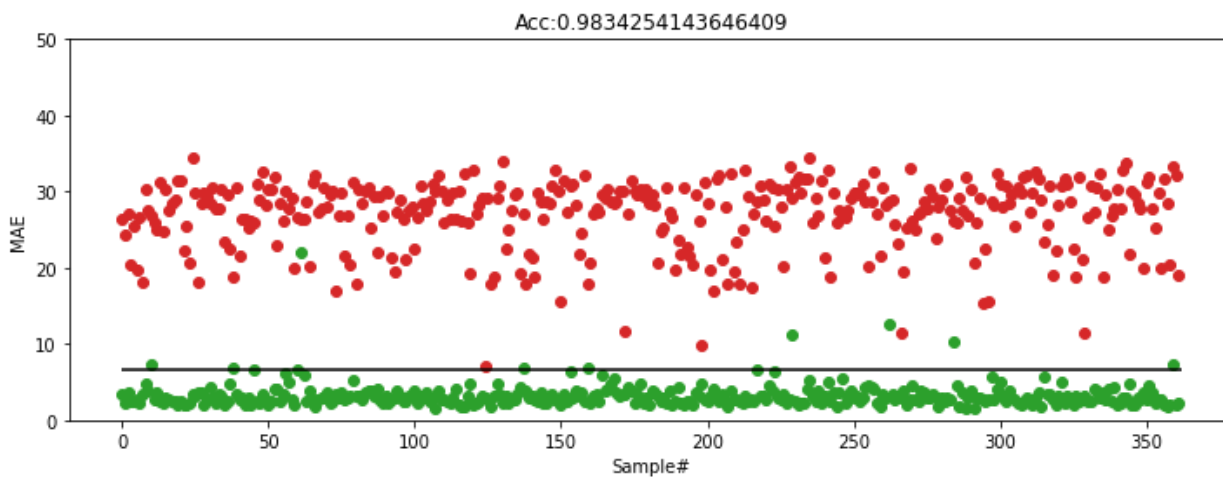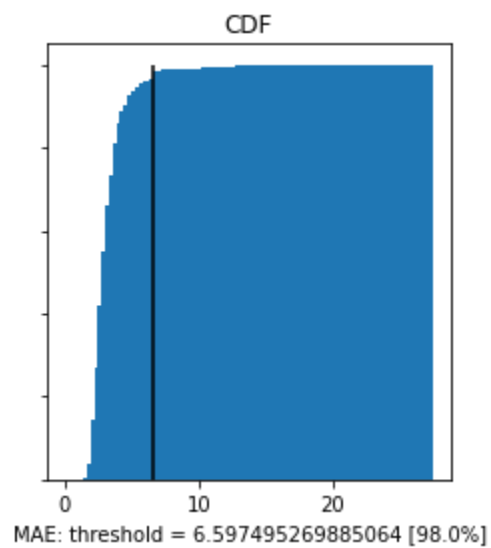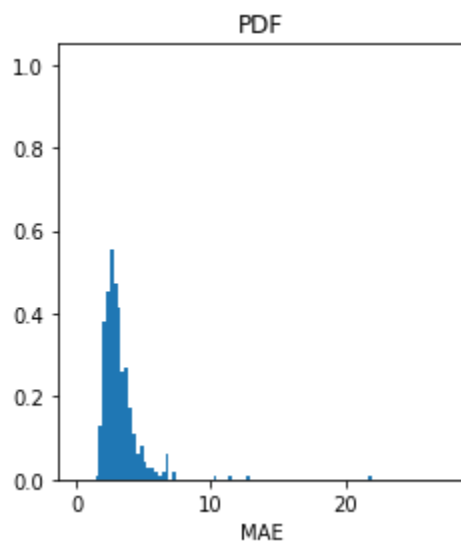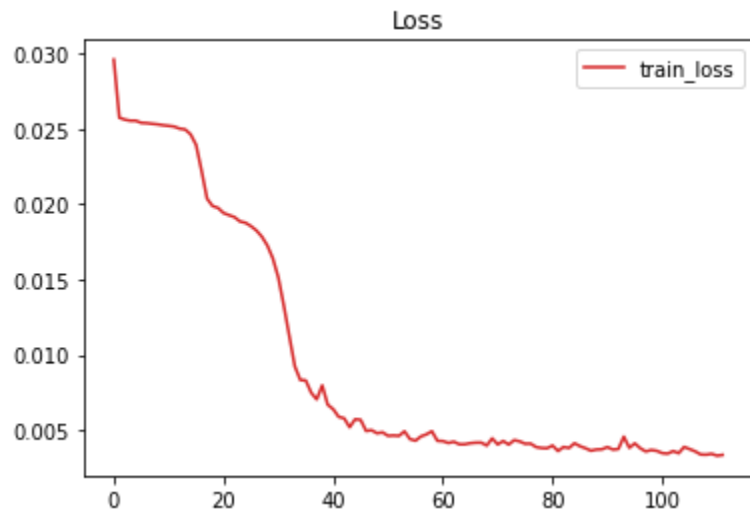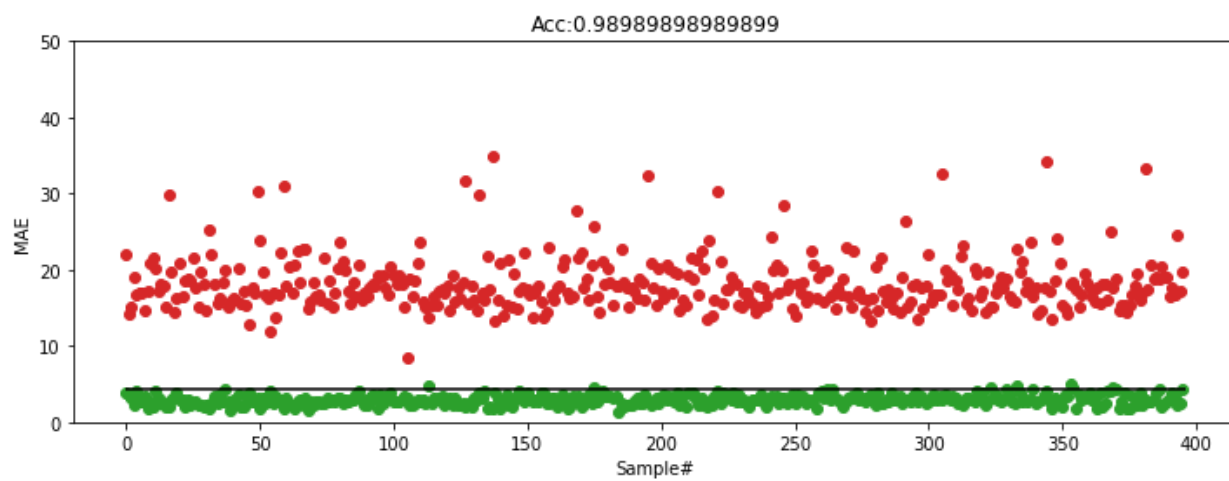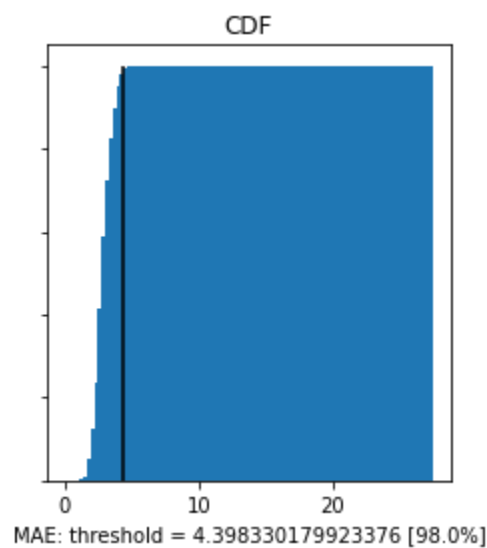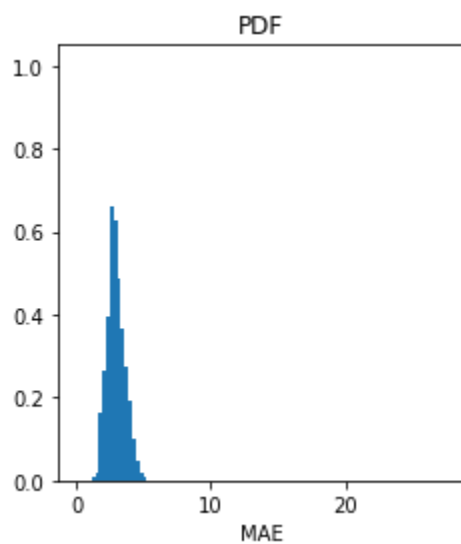Training Loss: 0.0063 [Epoch 00282: early stopping]

Beats used for Testing: 256 x 2

**REC: mitdb/228**
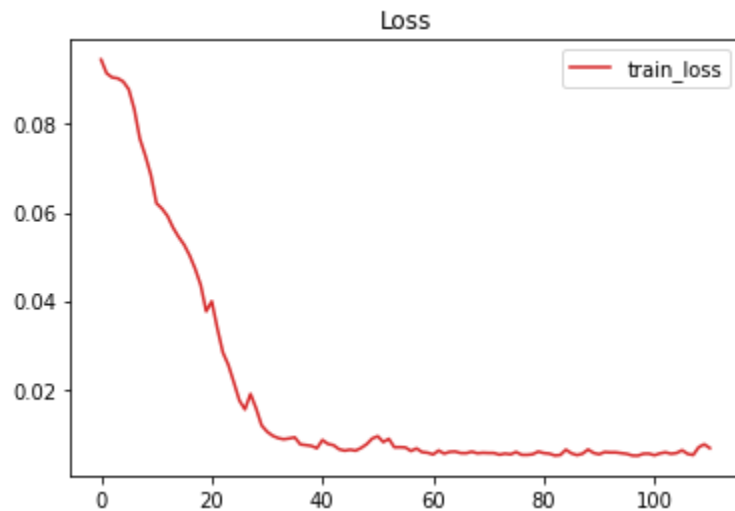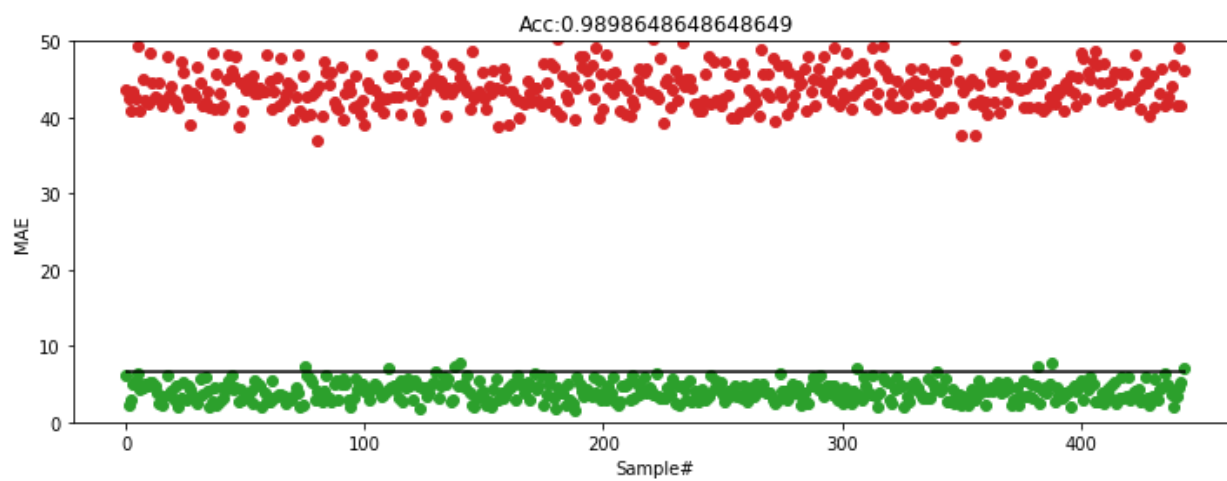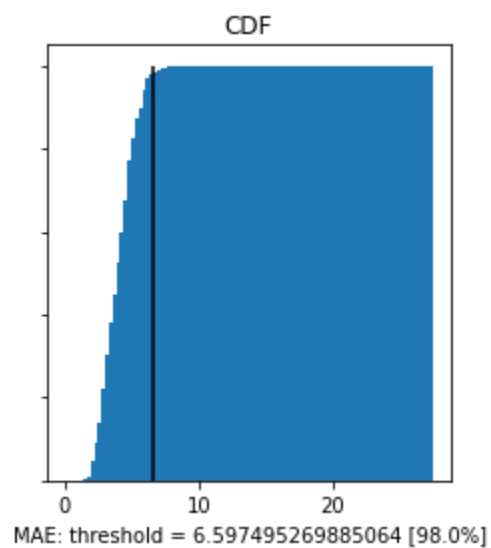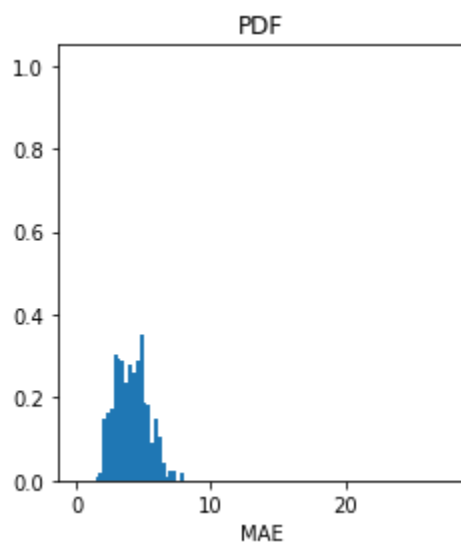
Training Loss: 0.0032 [Epoch 00112: early stopping]

Beats used for Testing: 362 x 2



Loss



PDF

CDF

MAE

MAE: threshold = 6.597495269885064 [98.0%]

Acc:0.9834254143646409

**REC: mitdb/221**

Training Loss: 0.0062 [Epoch 00111: early stopping]

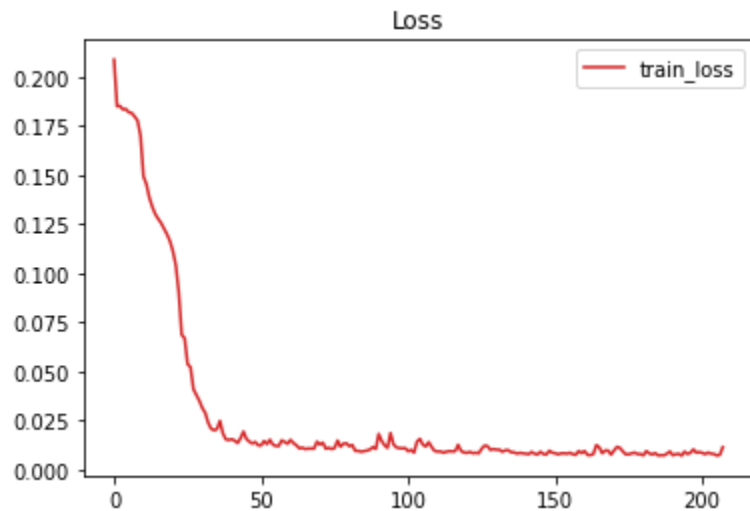Beats used for Testing: 396 x 2



Loss



PDF

CDF

MAE: threshold = 4.398330179923376 [98.0%]

Acc:0.98989898989899

**REC: mitdb/119**

Training Loss: 0.0076 [Epoch 00208: early stopping]

Beats used for Testing: 444 x 2



Loss



PDF

CDF

MAE: threshold = 6.597495269885064 [98.0%]

Acc:0.9898648648648649

**REC: mitdb/203**

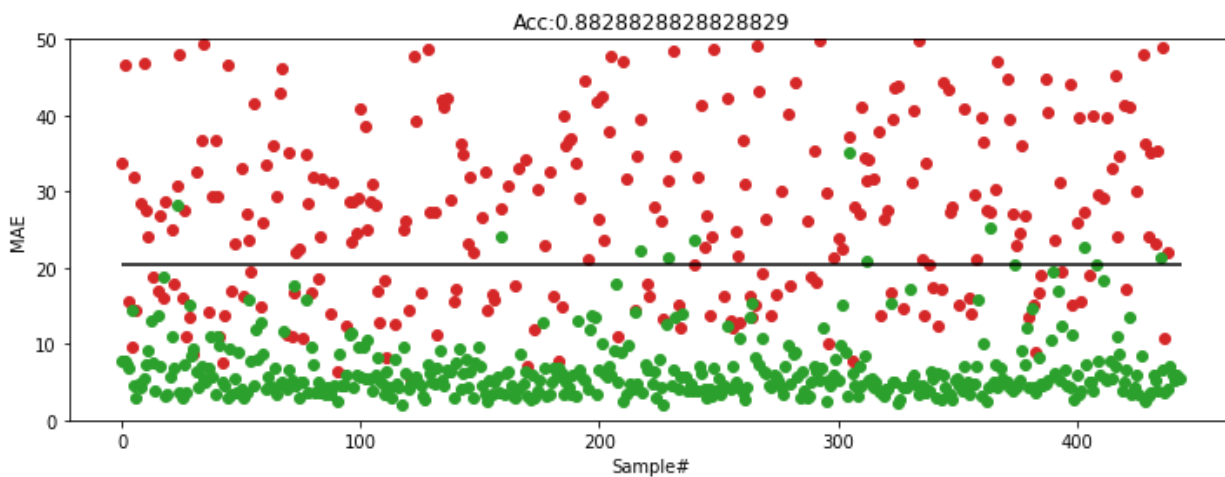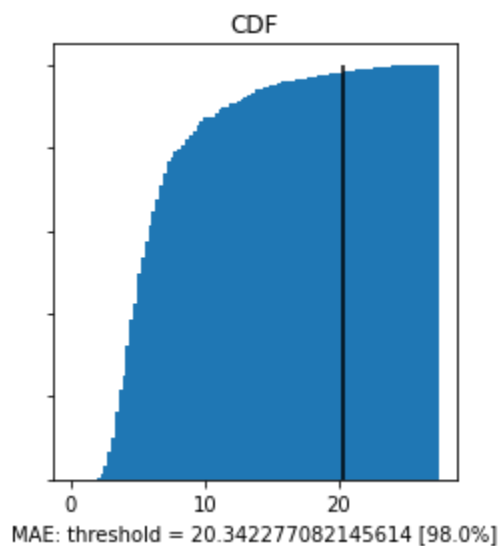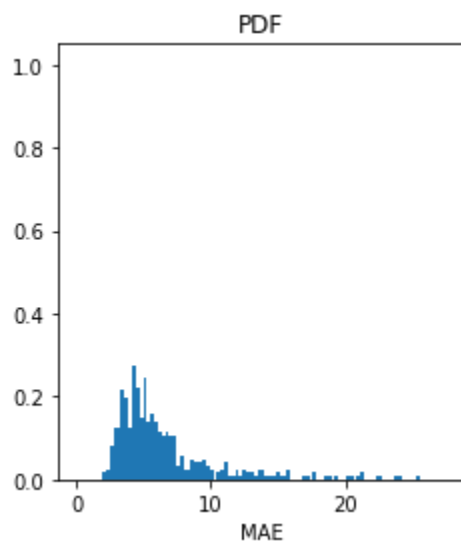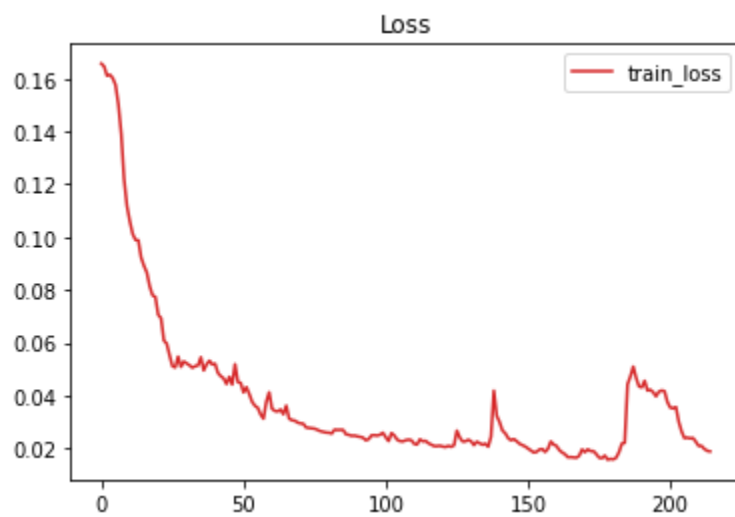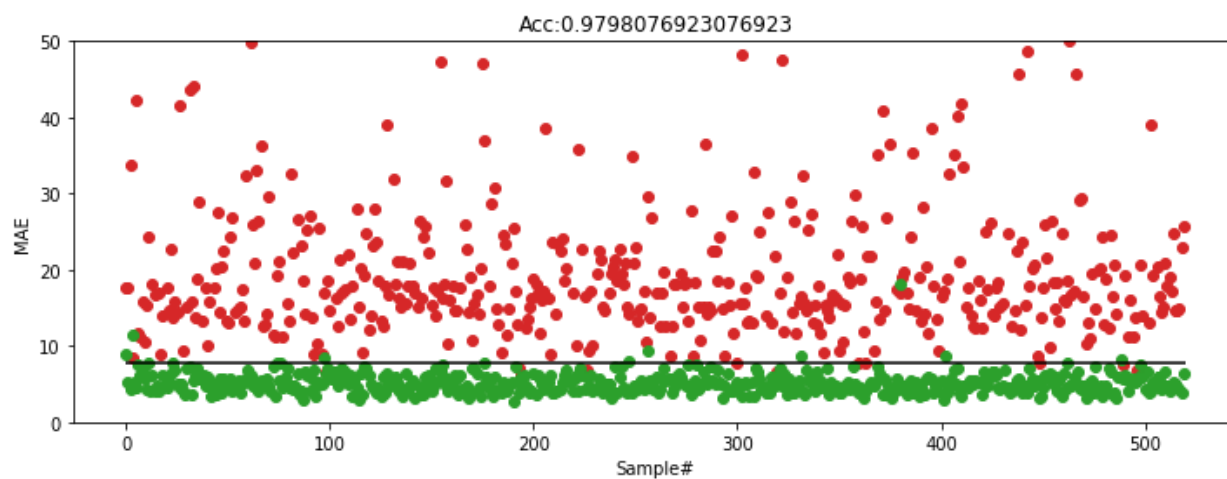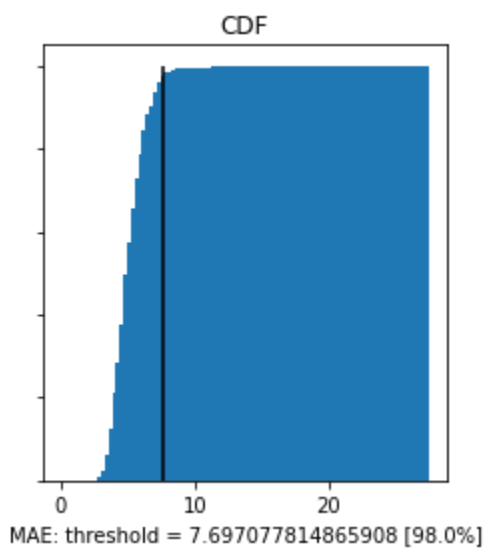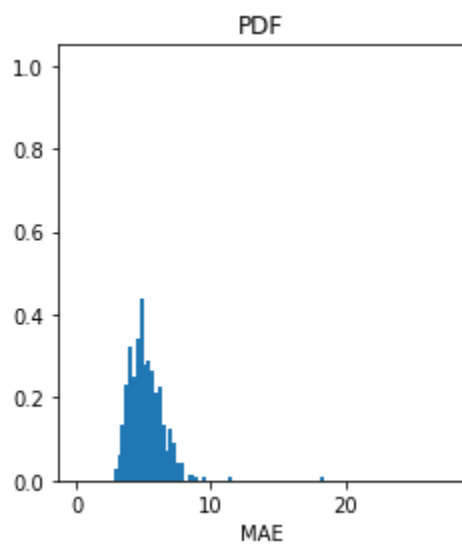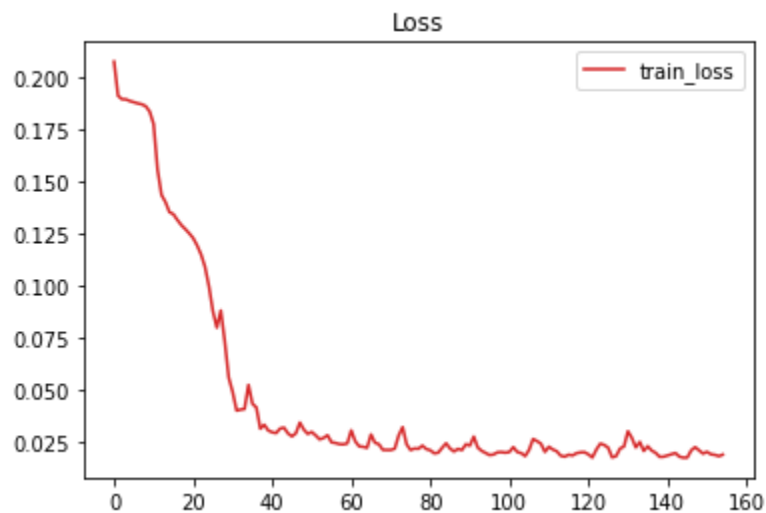Training Loss: 0.0198 [Epoch 00215: early stopping]

Beats used for Testing: 444 x 2

**REC: mitdb/106**

Training Loss: 0.0190 [Epoch 00155: early stopping]

Beats used for Testing: 520 x 2

## Loss



## PDF

## CDF



MAE: threshold = 7.697077814865908 [98.0%]

Acc:0.9798076923076923



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**End of Report**