Model Performance Report

Training and Classification Times

Model: resnet | Training Time: 29.87s | Classification Time: 0.83s

Model: Istm | Training Time: 60.68s | Classification Time: 0.76s

Model: transformer | Training Time: 133.07s | Classification Time: 0.91s

AUC Scores

Model: resnet | AUC Score: 0.67

Model: Istm | AUC Score: 0.56

Model: transformer | AUC Score: 0.50

Model: resnet

Class: Class 0

precision: 1.00

recall: 0.28

f1-score: 0.44

support: 25.00

Class: Class 1

precision: 0.45

recall: 0.71

f1-score: 0.55

support: 38.00

Class: Class 2

precision: 0.50

recall: 0.60

f1-score: 0.55

11 30010. 0.00

support: 35.00

Class: Class 3

precision: 0.83

recall: 0.43

f1-score: 0.57

support: 23.00

accuracy: 0.54

Class: macro avg

precision: 0.70

recall: 0.51

f1-score: 0.53

support: 121.00

Class: weighted avg

precision: 0.65

recall: 0.54

f1-score: 0.53

support: 121.00

Model: Istm

Class: Class 0

precision: 0.33

recall: 0.08

f1-score: 0.13

support: 25.00

Class: Class 1

precision: 0.47

recall: 0.53

f1-score: 0.49

support: 38.00

Class: Class 2

precision: 0.34

recall: 0.66

f1-score: 0.45

support: 35.00

Class: Class 3

precision: 0.50

recall: 0.09

f1-score: 0.15

support: 23.00

accuracy: 0.39

Class: macro avg

precision: 0.41

recall: 0.34

f1-score: 0.30

support: 121.00

Class: weighted avg

precision: 0.41

recall: 0.39

f1-score: 0.34

support: 121.00

Model: transformer

Class: Class 0

precision: 0.00

recall: 0.00

f1-score: 0.00

support: 25.00

Class: Class 1

precision: 0.00

recall: 0.00

f1-score: 0.00

support: 38.00

Class: Class 2

precision: 0.29

recall: 1.00

f1-score: 0.45

support: 35.00

Class: Class 3

precision: 0.00

recall: 0.00

f1-score: 0.00

support: 23.00

accuracy: 0.29

Class: macro avg

precision: 0.07

recall: 0.25

f1-score: 0.11

support: 121.00

Class: weighted avg

precision: 0.08

recall: 0.29

f1-score: 0.13

support: 121.00

Figure 1

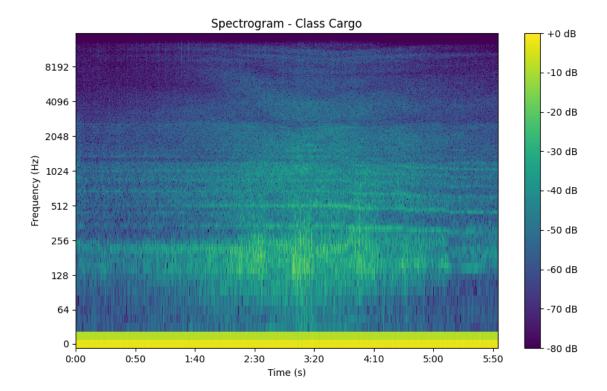


Figure 2

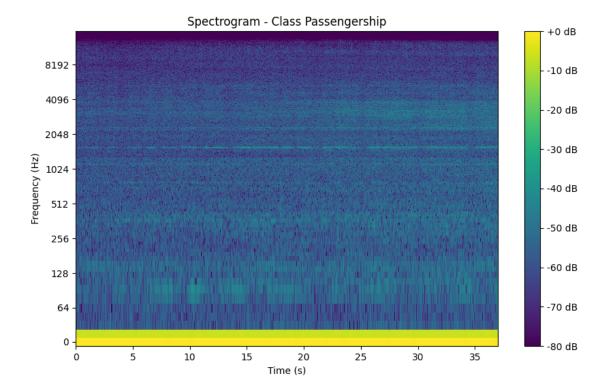


Figure 3

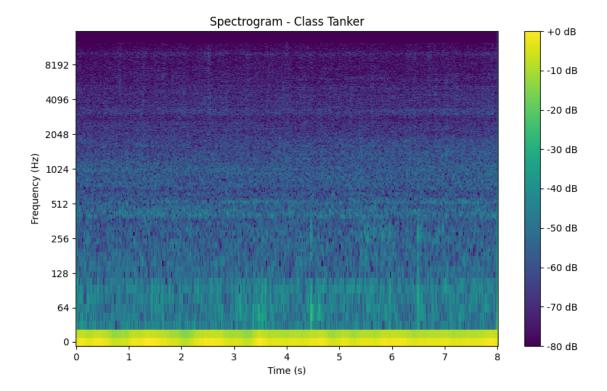
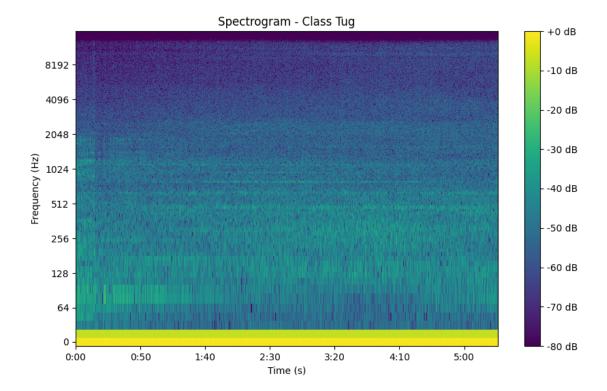
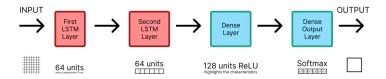


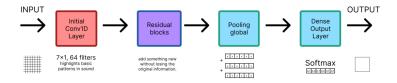
Figure 4



LSTM Model



ResNet Model



Transformer Model

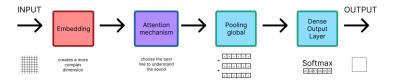


Figure 6

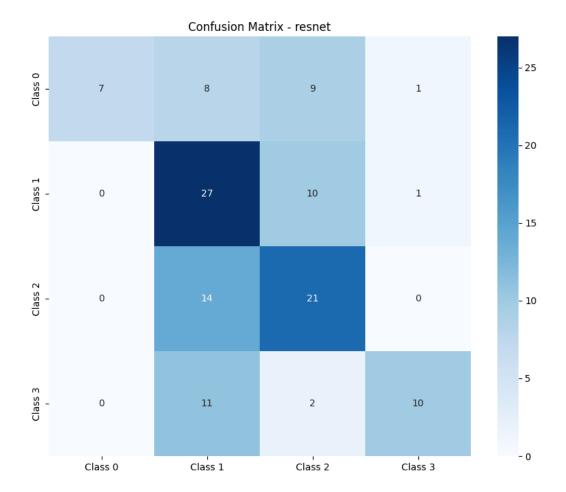


Figure 7

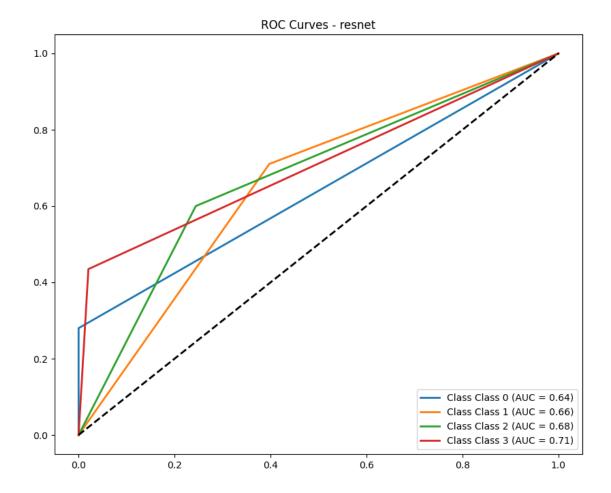


Figure 8

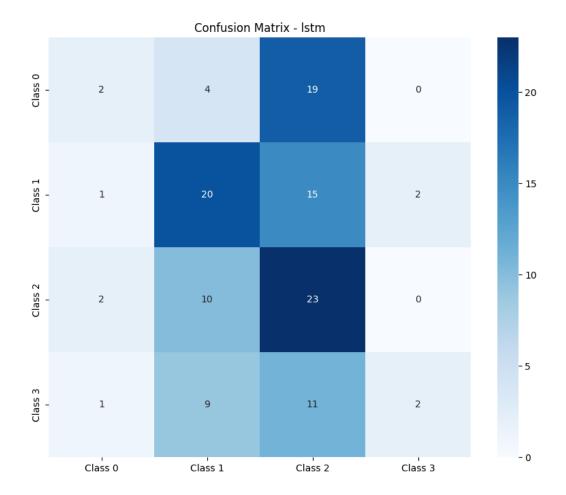


Figure 9

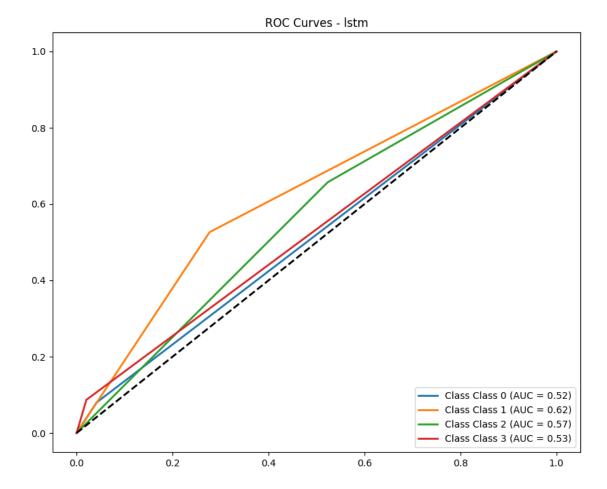


Figure 10

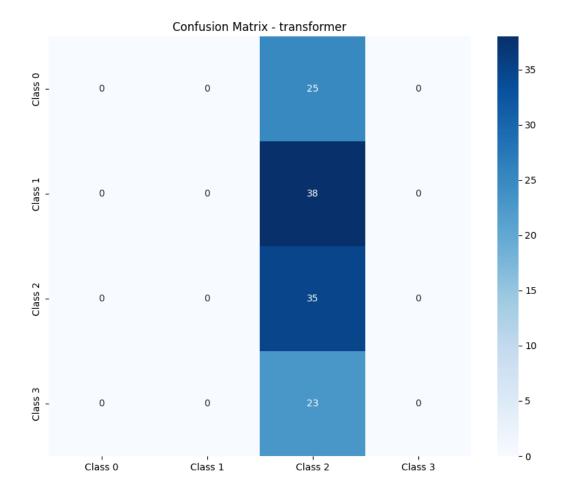


Figure 11

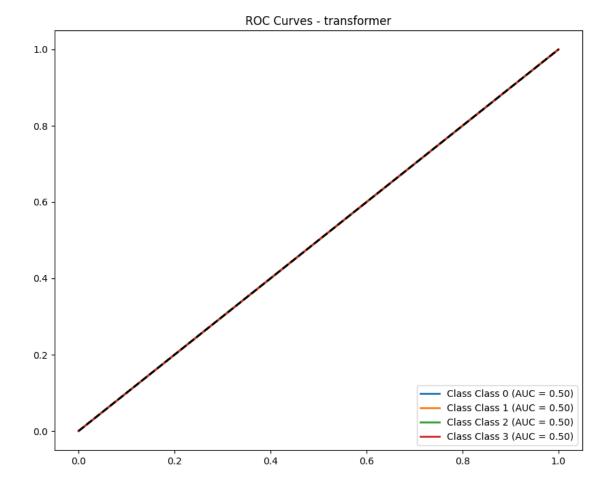


Figure 12

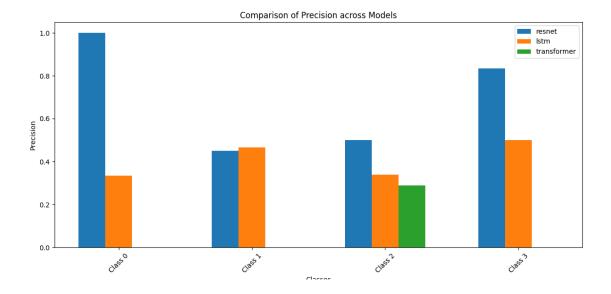


Figure 13

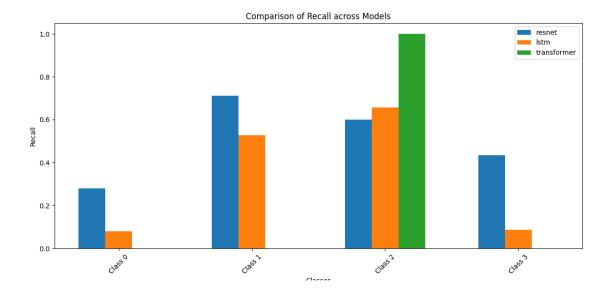


Figure 14

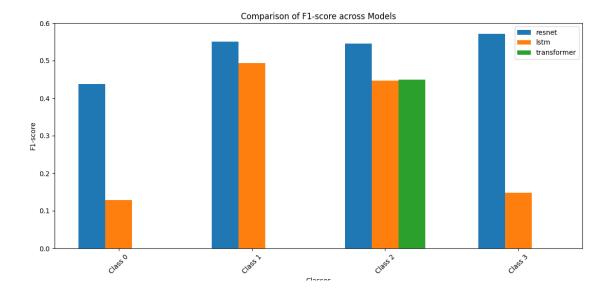


Figure 15

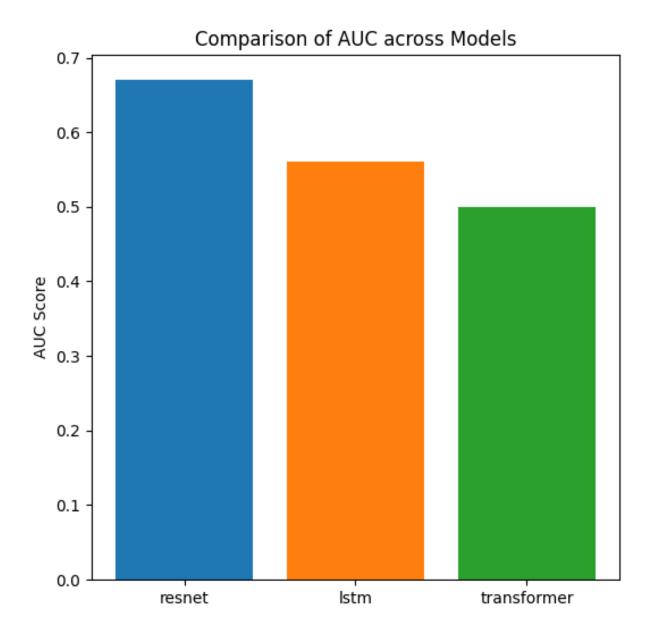


Figure 16

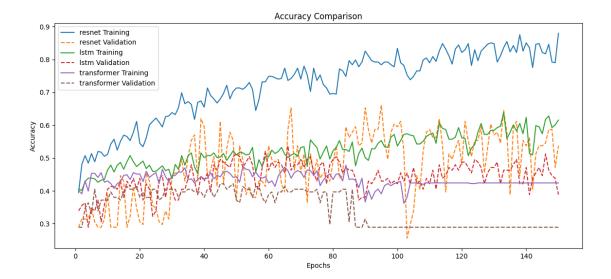


Figure 17



Figure 18

