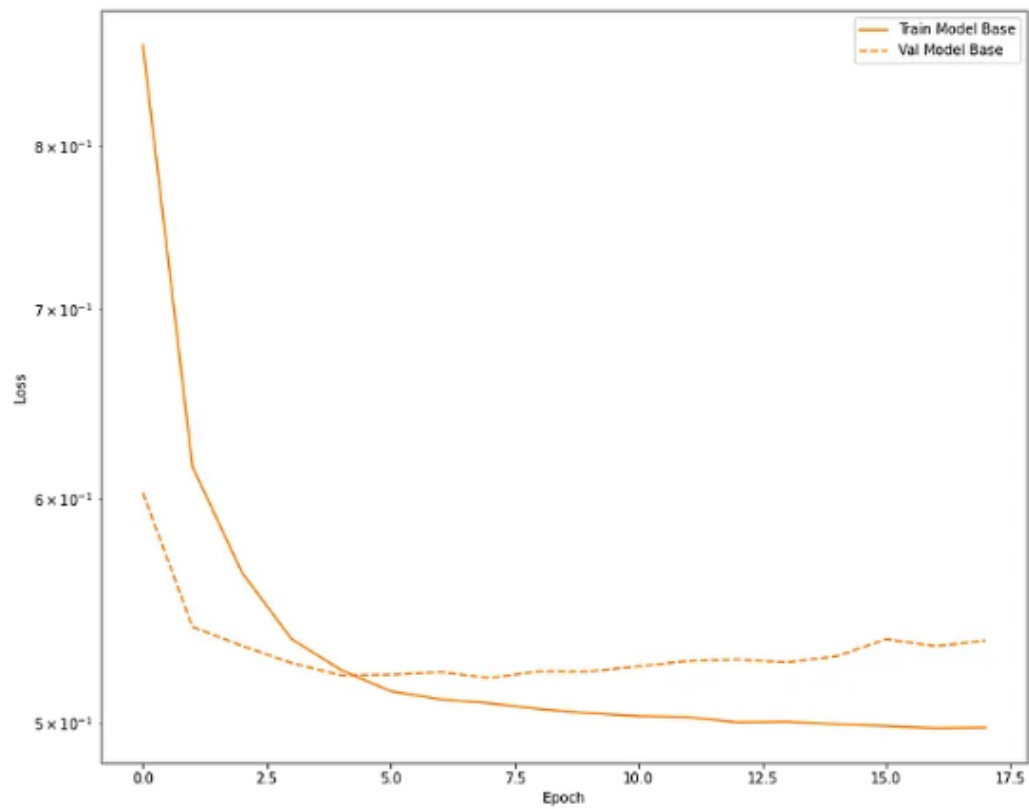


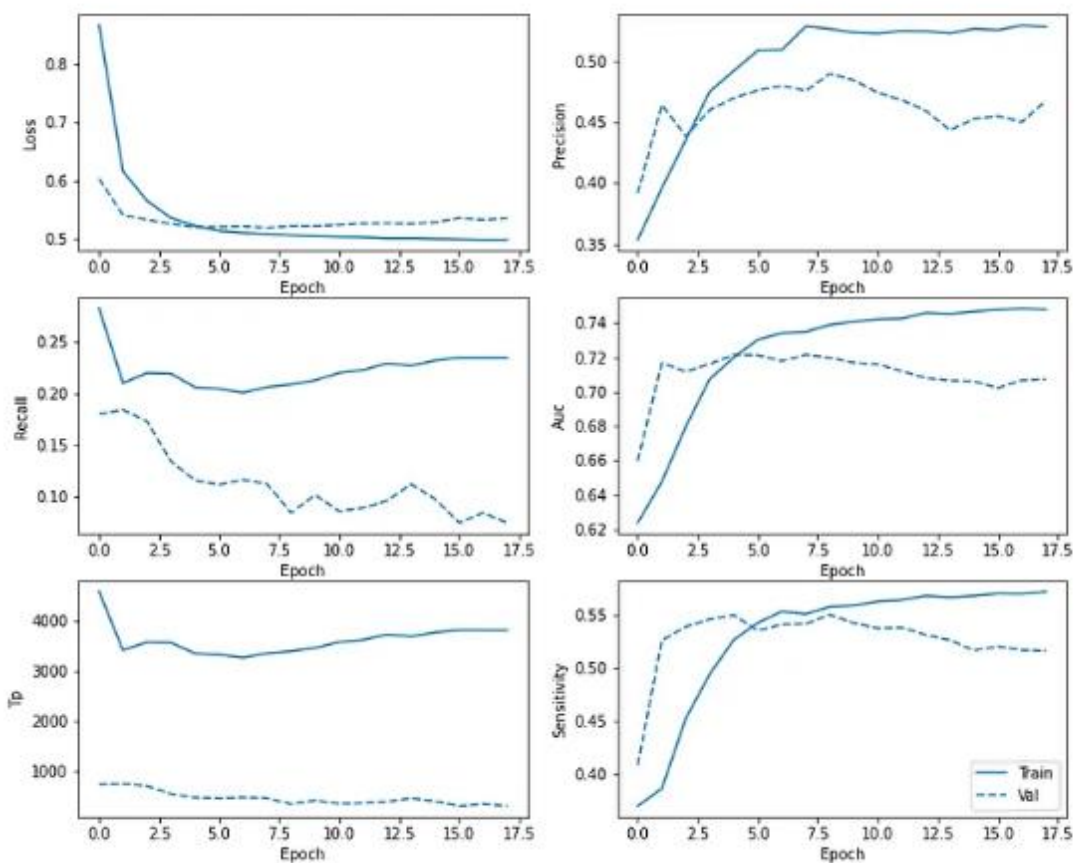
Model: "sequential"

Layer (type)	Output Shape	Param #
conv2d (Conv2D)	(None, 128, 64, 64)	9728
conv2d_1 (Conv2D)	(None, 64, 64, 64)	73792
max_pooling2d (MaxPooling2D)	(None, 64, 32, 32)	0
batch_normalization (Batch Normalization)	(None, 64, 32, 32)	128
flatten (Flatten)	(None, 65536)	0
dropout (Dropout)	(None, 65536)	0
dense (Dense)	(None, 1)	65537
Total params: 149,185		
Trainable params: 149,121		
Non-trainable params: 64		

```
...
Epoch 18/60
1012/1012 [=====] - ETA: 0s - loss: 0.4979 -
tp: 3800.0000 - fp: 3390.0000 - tn: 45164.0000 - fn: 12385.0000 -
accuracy: 0.7563 - precision: 0.5285 - recall: 0.2348 - auc: 0.7480 -
sensitivity: 0.5719
...
```



A plot of loss function using a log scale to show a wide range of value

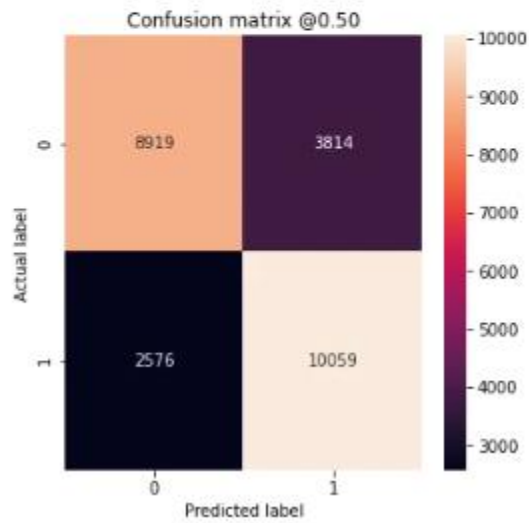


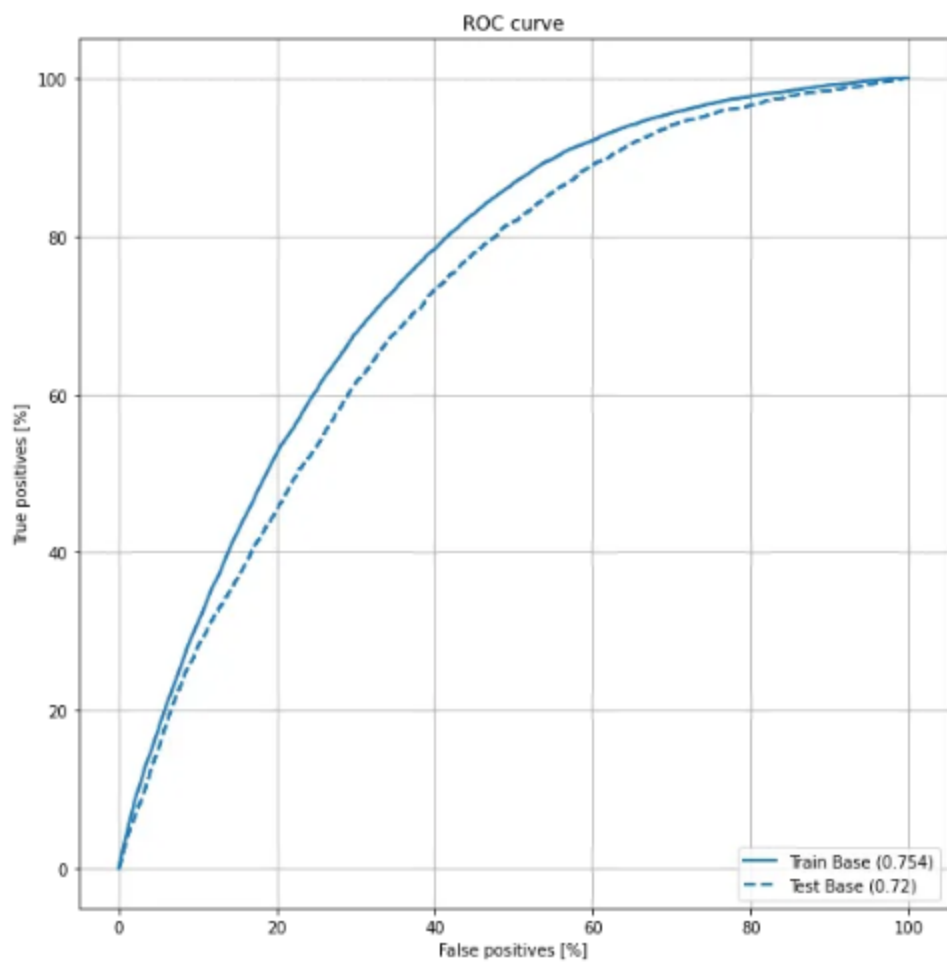
Evaluate on test data

397/397 [=====] - 11s 27ms/step - loss:
 0.5186 - tp: 860.0000 - fp: 845.0000 - tn: 18181.0000 - fn: 5482.0000
 - accuracy: 0.7506 - precision: 0.5044 - recall: 0.1356 - auc: 0.7195
 - sensitivity: 0.5247

```
{'accuracy': 0.7505912780761719,
 'auc': 0.7195032238960266,
 'fn': 5482.0,
 'fp': 845.0,
 'loss': 0.5186316967010498,
 'precision': 0.5043988227844238,
 'recall': 0.1356039047241211,
 'sensitivity': 0.5247030258178711,
 'tn': 18181.0,
 'tp': 860.0}
```

Lesions Detected (True Negatives): 8919
Lesions Incorrectly Detected (False Positives): 3814
No-Lesions Missed (False Negatives): 2576
No-Lesions Detected (True Positives): 10059
Total Lesions: 12635





ROC curve