

Found 5216 images belonging to 2 classes.  
Found 16 images belonging to 2 classes.  
Found 624 images belonging to 2 classes.

### Data Augmentation and Rescaling

Epoch 1/30  
163/163 ————— 97s 572ms/step - accuracy: 0.9490 - loss: 0.1351 - val\_accuracy: 0.5625 - val\_loss: 0.7687 - learning\_rate: 1.0000e-04

Epoch 11/30  
163/163 ————— 92s 549ms/step - accuracy: 0.9636 - loss: 0.1064 - val\_accuracy: 0.6875 - val\_loss: 0.4224 - learning\_rate: 2.0000e-05

Epoch 21/30  
163/163 ————— 92s 549ms/step - accuracy: 0.9655 - loss: 0.0921 - val\_accuracy: 0.6250 - val\_loss: 0.4708 - learning\_rate: 1.0000e-05

163/163 ————— 93s 552ms/step - accuracy: 0.9608 - loss: 0.0994 - val\_accuracy: 0.7500 - val\_loss: 0.4321 - learning\_rate: 1.0000e-05  
Epoch 30/30

### Random of 30 Epoch

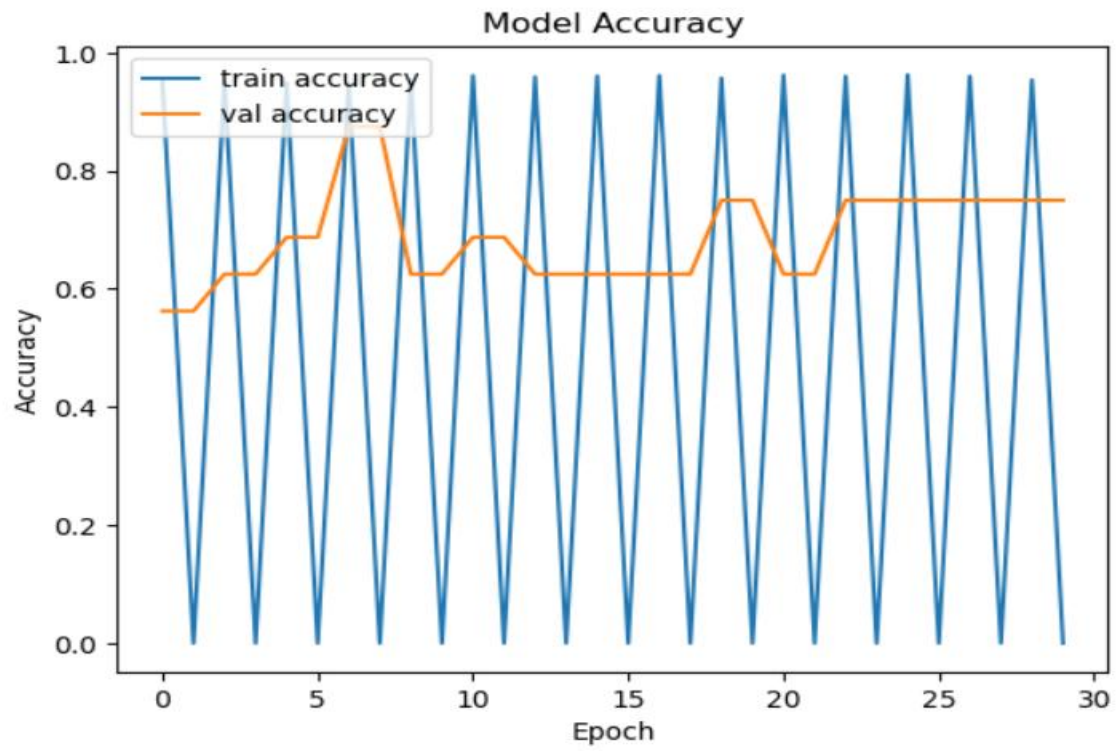
20/20 ————— 7s 367ms/step - accuracy: 0.9199 - loss: 0.2449  
Test Accuracy: 92.31%

### Accuracy and Loss

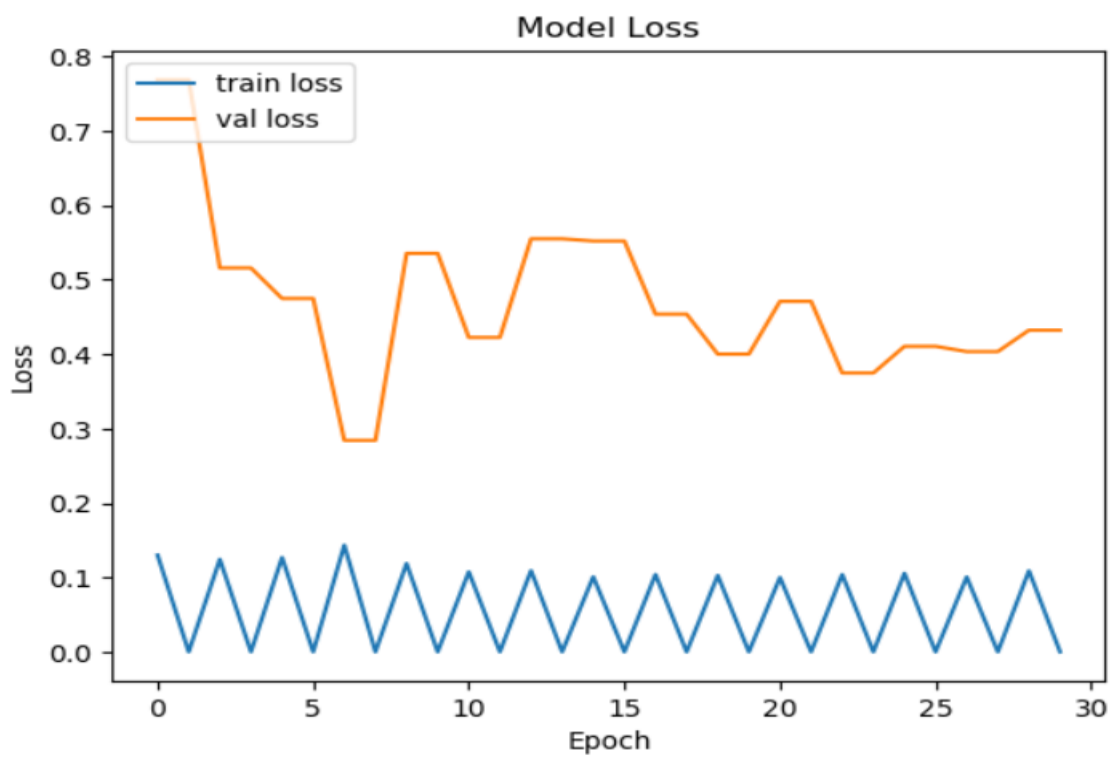
1/1 ————— 0s 149ms/step  
1/1 ————— 0s 148ms/step  
1/1 ————— 0s 145ms/step  
1/1 ————— 0s 132ms/step  
1/1 ————— 0s 129ms/step



### Test Images



Model Accuracy Plot



Model Loss Plot

20/20	<div></div>				7s 356ms/step
	precision	recall	f1-score	support	
Normal	0.42	0.36	0.39	234	
Pneumonia	0.65	0.70	0.67	390	
accuracy			0.57	624	
macro avg	0.53	0.53	0.53	624	
weighted avg	0.56	0.57	0.57	624	
[[ 84 150]					
[116 274]]					

### Model Evaluation using Metrics