Report: Train your Network

Initial Network

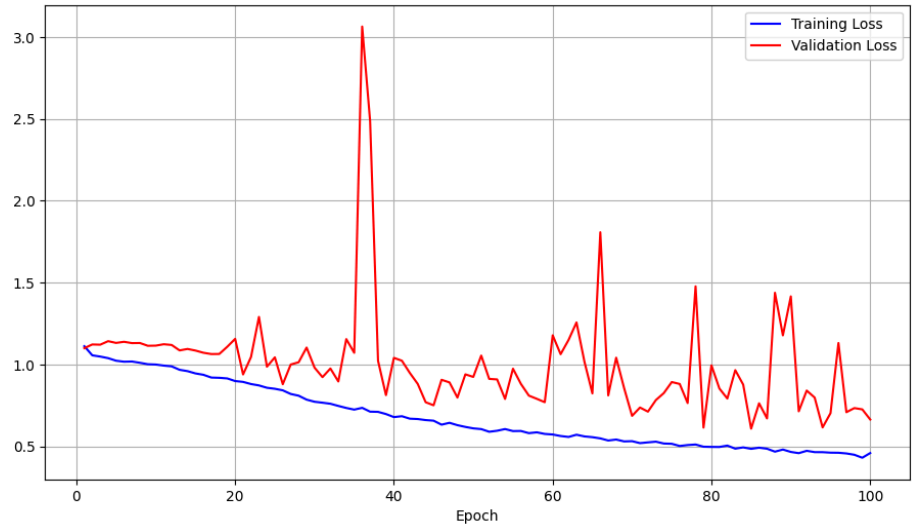
Model: "sequential_1"

Layer (type)	Output Shape	Param #
rescaling_1 (Rescaling)	(None, 150, 150, 3)	0
conv2d_3 (Conv2D)	(None, 150, 150, 32)	896
batch_normalization_3 (BatchNormalization)	(None, 150, 150, 32)	128
max_pooling2d_3 (MaxPooling2D)	(None, 75, 75, 32)	0
conv2d_4 (Conv2D)	(None, 75, 75, 64)	18,496
batch_normalization_4 (BatchNormalization)	(None, 75, 75, 64)	256
max_pooling2d_4 (MaxPooling2D)	(None, 37, 37, 64)	0
dropout_2 (Dropout)	(None, 37, 37, 64)	0
conv2d_5 (Conv2D)	(None, 37, 37, 64)	36,928
batch_normalization_5 (BatchNormalization)	(None, 37, 37, 64)	256
max_pooling2d_5 (MaxPooling2D)	(None, 18, 18, 64)	0
global_average_pooling2d_1 (GlobalAveragePooling2D)	(None, 64)	0
dropout_3 (Dropout)	(None, 64)	0

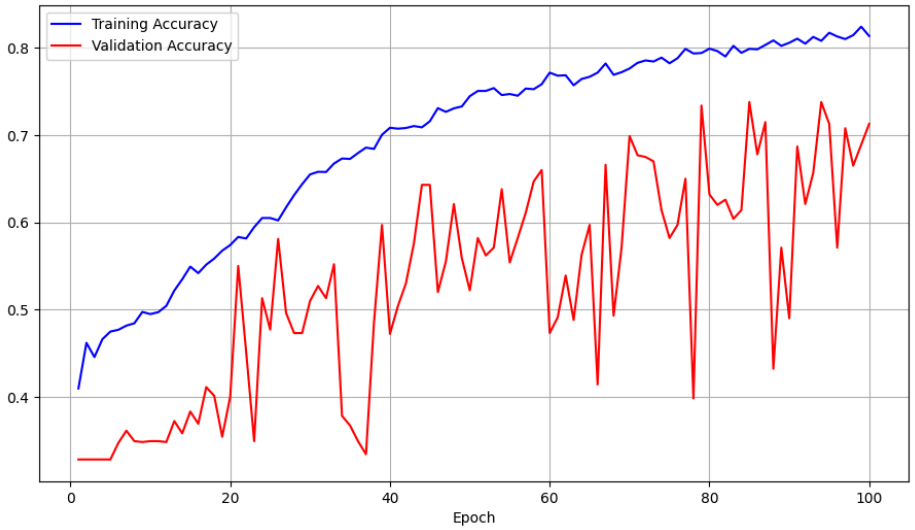
dense_2 (Dense)	(None, 64)	4,160
dense_3 (Dense)	(None, 3)	195

Total params: 61,315 (239.51 KB)
Trainable params: 60,995 (238.26 KB)
Non-trainable params: 320 (1.25 KB)

Plot Showing Training and Validation Loss as Function of Epoch



Plot Showing Accuracy Against the Training and Validation Sets as a Function of Epoch



The Accuracy and Loss of Best Learned Model (obtained as the model in effect when overfitting begins) when Measured Against the Held-Back Test Set

Raw Training Output at Epoch 79 (Best Performance):

Epoch 79/100

32/32 ━━ 3s 91ms/step - accuracy: 0.7934 (79.34%) - loss: 0.5046 - val_accuracy: 0.7340 - val_loss: 0.6142

Raw Test Set Evaluation:

* Evaluating basic_model

30/30 ━━ 2s 51ms/step - accuracy: 0.6932 (69.32%) - loss: 0.6183