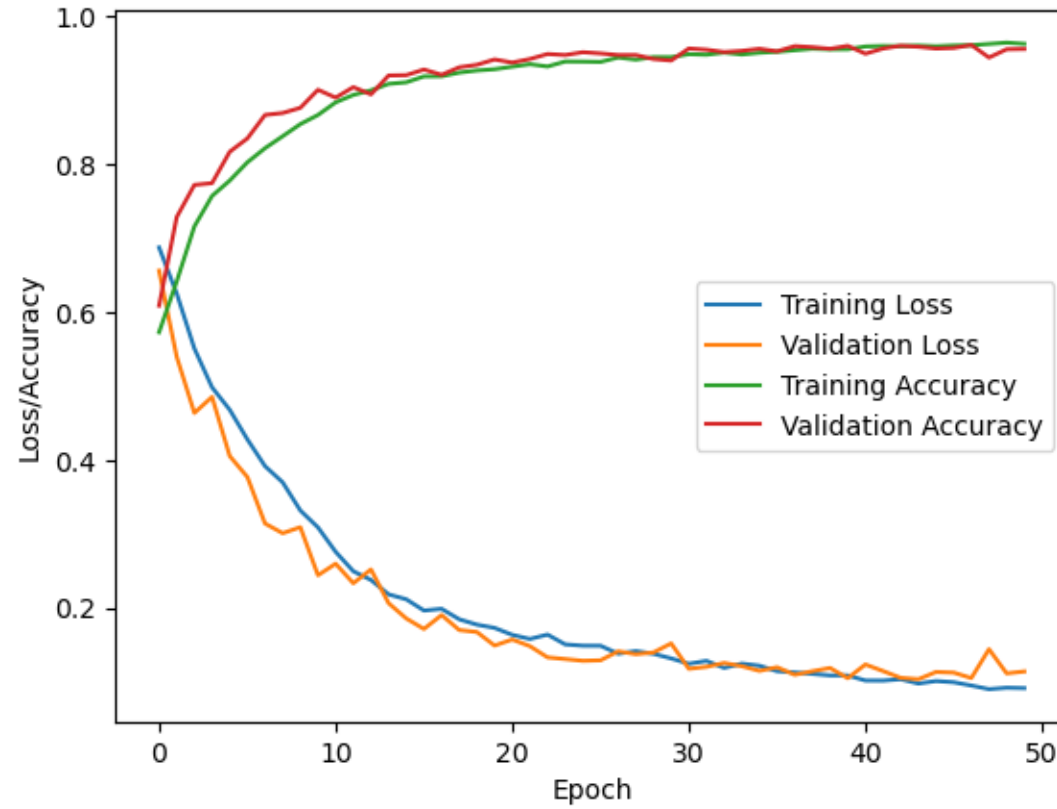


Best Results of the Cats and Dogs Dataset

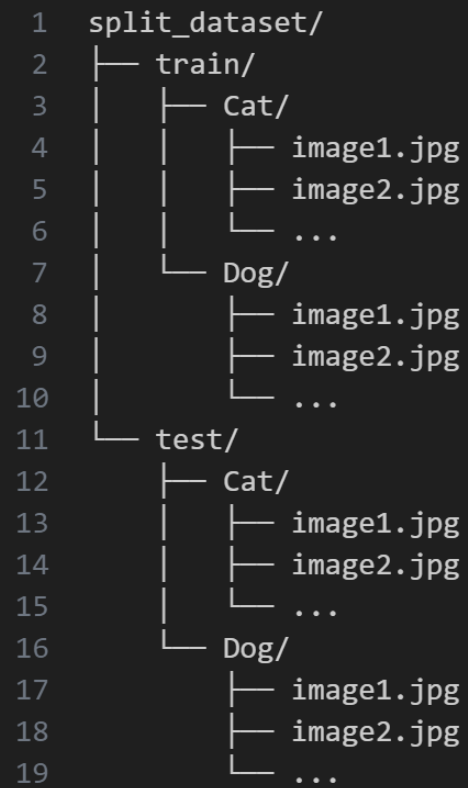
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Loss and Accuracy for the Training and Validation Sets

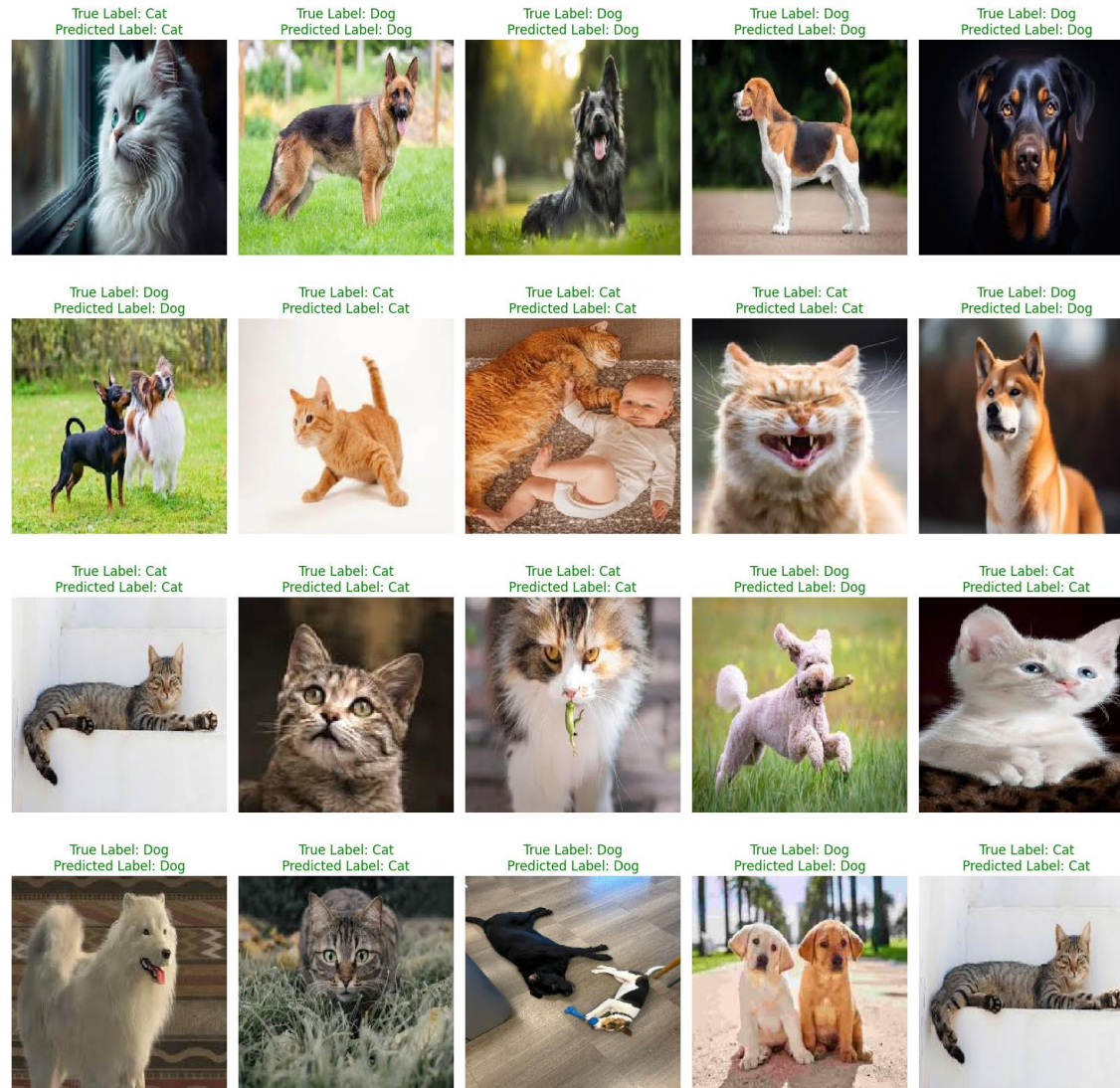


Structure



```
1 split_dataset/
2   ├── train/
3       ├── Cat/
4           ├── image1.jpg
5           ├── image2.jpg
6           └── ...
7       └── Dog/
8           ├── image1.jpg
9           ├── image2.jpg
10          └── ...
11   └── test/
12       ├── Cat/
13           ├── image1.jpg
14           ├── image2.jpg
15           └── ...
16       └── Dog/
17           ├── image1.jpg
18           ├── image2.jpg
19          └── ...
```

Displayed Sample of the best result



Best validation Accuracy

```

Epoch 1/20
313/313 ————— 305s 967ms/step - accuracy: 0.8769 - loss: 0.2845 - val_accuracy: 0.9030 - val_loss: 0.2365 - learning_rate: 9.0000e-04
Epoch 2/20
313/313 ————— 305s 966ms/step - accuracy: 0.8934 - loss: 0.2531 - val_accuracy: 0.9072 - val_loss: 0.2164 - learning_rate: 9.0000e-04
Epoch 3/20
313/313 ————— 304s 965ms/step - accuracy: 0.8991 - loss: 0.2368 - val_accuracy: 0.9252 - val_loss: 0.1823 - learning_rate: 9.0000e-04
Epoch 4/20
313/313 ————— 305s 967ms/step - accuracy: 0.9012 - loss: 0.2337 - val_accuracy: 0.9154 - val_loss: 0.2049 - learning_rate: 9.0000e-04
Epoch 5/20
313/313 ————— 304s 964ms/step - accuracy: 0.9153 - loss: 0.2093 - val_accuracy: 0.9286 - val_loss: 0.1693 - learning_rate: 9.0000e-04
Epoch 6/20
313/313 ————— 304s 963ms/step - accuracy: 0.9186 - loss: 0.1962 - val_accuracy: 0.9288 - val_loss: 0.1735 - learning_rate: 8.1000e-04
Epoch 7/20
313/313 ————— 305s 966ms/step - accuracy: 0.9191 - loss: 0.1962 - val_accuracy: 0.9286 - val_loss: 0.1676 - learning_rate: 8.1000e-04
Epoch 8/20
313/313 ————— 305s 966ms/step - accuracy: 0.9217 - loss: 0.1871 - val_accuracy: 0.9314 - val_loss: 0.1601 - learning_rate: 8.1000e-04
Epoch 9/20
313/313 ————— 304s 964ms/step - accuracy: 0.9287 - loss: 0.1737 - val_accuracy: 0.9408 - val_loss: 0.1513 - learning_rate: 8.1000e-04
Epoch 10/20
313/313 ————— 305s 966ms/step - accuracy: 0.9268 - loss: 0.1733 - val_accuracy: 0.9270 - val_loss: 0.1733 - learning_rate: 8.1000e-04
Epoch 11/20
313/313 ————— 305s 965ms/step - accuracy: 0.9289 - loss: 0.1686 - val_accuracy: 0.9450 - val_loss: 0.1424 - learning_rate: 7.2900e-04
Epoch 12/20
313/313 ————— 304s 963ms/step - accuracy: 0.9348 - loss: 0.1569 - val_accuracy: 0.9436 - val_loss: 0.1394 - learning_rate: 7.2900e-04
Epoch 13/20
...
Epoch 19/20
313/313 ————— 308s 976ms/step - accuracy: 0.9468 - loss: 0.1325 - val_accuracy: 0.9522 - val_loss: 0.1256 - learning_rate: 6.5610e-04
Epoch 20/20
313/313 ————— 307s 970ms/step - accuracy: 0.9456 - loss: 0.1401 - val_accuracy: 0.9496 - val_loss: 0.1276 - learning_rate: 6.5610e-04

```