

Pets Classification

Using Fine-Tuned Pre-trained Network
(ResNet34)

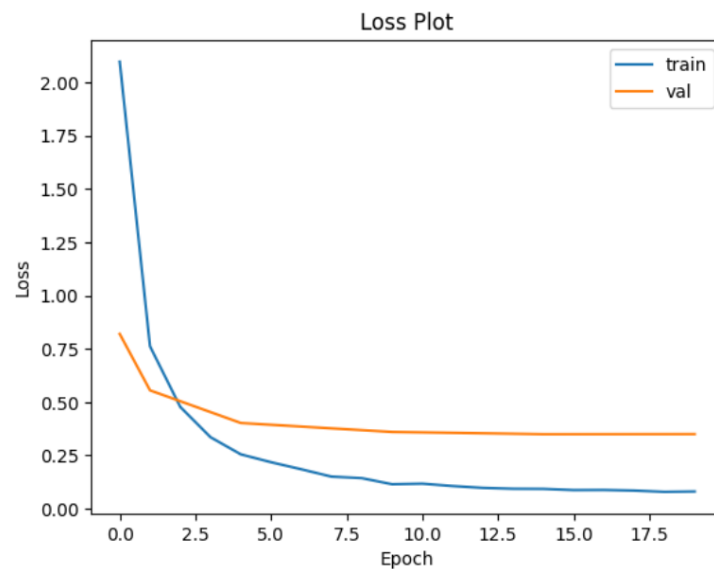
by **Rajat Chakraborty**

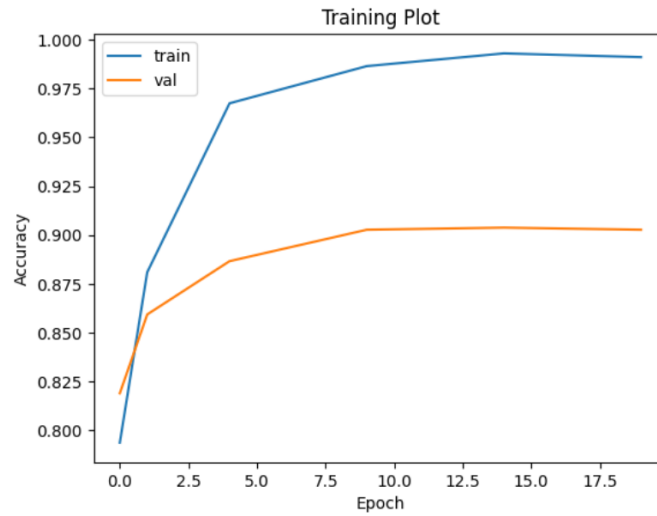
1. Fine-tuned ResNet

a. Network Information:

```
=====
=====
- conv1                :                9408
- bn1                  :                128
- relu                 :                 0
- maxpool              :                 0
- layer1               :             221952
- layer2               :             1116416
- layer3               :             6822400
- layer4               :            13114368
- avgpool              :                 0
- fc                   :             18981
=====
-----
--Total                :            21303653 params
```

b. Plot accuracy and loss:





c. Best test accuracy: **90.16%**

Specification: num_epochs = 20, test_interval = 5, learn_rate = 0.000095

2. Building Own Network

a. Network Information

```
=====
=====
- conv1                :                9408
- bn1                  :                128
- maxpool              :                 0
- layer1               :             147968
- layer2               :             525568
- layer3               :            2099712
- avgpool              :                 0
- fc                   :                9509
=====
=====
--Total                :            2792293 params
```

b. Best test accuracy: **39.19%** with only ~2.8M parameters