```
1 E:\miniconda3\envs\pytorch\python.exe E:\desktop\
  DeepLearning\cat_vs_dog\resnet_no_attention.py
2 Epoch 1/20
3 -----
4 Training: 100% | 547/547 [00:54<00:00, 10.
  02it/s]
5 Validating: 0%|
                          | 0/157 [00:00<?, ?it/s]
  Train Loss: 0.6917 Acc: 0.5523
6 Validating: 100%| | 157/157 [00:22<00:00, 7
  .03it/s]
7 Val Loss: 0.8048 Acc: 0.5022
8 Training: 0%| | 0/547 [00:00<?, ?it/s]
  Epoch 2/20
9 -----
10 Training: 100%| 547/547 [00:54<00:00, 10.
  08it/sl
11 Validating: 0%|
                           | 0/157 [00:00<?, ?it/s]
  Train Loss: 0.6711 Acc: 0.5931
12 Validating: 100% | 157/157 [00:22<00:00, 6
  .93it/s]
13 Val Loss: 0.6566 Acc: 0.5882
14 Epoch 3/20
15 -----
16 Training: 100% | 547/547 [00:54<00:00, 9.
  98it/s]
17 Train Loss: 0.6605 Acc: 0.6093
18 Validating: 100%| | 157/157 [00:22<00:00, 7
  .04it/sl
19 Val Loss: 0.6328 Acc: 0.6172
20 Training: 0%| | 0/547 [00:00<?, ?it/s]
  Epoch 4/20
21 -----
22 Training: 100% | 547/547 [00:55<00:00, 9.
  93it/s]
23 Validating: 0%|
                          | 0/157 [00:00<?, ?it/s]
  Train Loss: 0.6495 Acc: 0.6226
24 Validating: 100%| | 157/157 [00:22<00:00, 7
  .03it/s]
25 Val Loss: 0.6219 Acc: 0.6444
26 Training: 0% | 0/547 [00:00<?, ?it/s]
  Epoch 5/20
```

```
27 -----
28 Training: 100% | 547/547 [00:55<00:00, 9.
  90it/s]
               0%|
29 Validating:
                          | 0/157 [00:00<?, ?it/s]
  Train Loss: 0.6389 Acc: 0.6363
30 Validating: 100%| 157/157 [00:21<00:00, 7
  .27it/sl
31 Val Loss: 0.6146 Acc: 0.6556
32 Epoch 6/20
33 -----
34 Training: 100% | 547/547 [00:55<00:00, 9.
  88it/s]
35 Validating:
               0%|
                          | 0/157 [00:00<?, ?it/s]
  Train Loss: 0.6298 Acc: 0.6485
36 Validating: 100%| 157/157 [00:22<00:00, 7
  .04it/sl
37 Val Loss: 0.6207 Acc: 0.6734
38 Epoch 7/20
39 -----
40 Training: 100%| 547/547 [00:55<00:00, 9.
  89it/s]
41 Validating: 0%
                          | 0/157 [00:00<?, ?it/s]
  Train Loss: 0.6171 Acc: 0.6637
42 Validating: 100% | 157/157 [00:22<00:00, 7
  .13it/sl
43 Val Loss: 0.5599 Acc: 0.7206
44 Training: 0% | 0/547 [00:00<?, ?it/s]
  Epoch 8/20
45 -----
46 Training: 100% | 547/547 [00:55<00:00, 9.
  83it/s]
47 Train Loss: 0.6059 Acc: 0.6786
48 Validating: 100%| | 157/157 [00:21<00:00, 7
  .24it/s]
49 Training: 0%| | 0/547 [00:00<?, ?it/s]Val
  Loss: 0.5812 Acc: 0.6908
50 Epoch 9/20
51 -----
52 Training: 100%
                   | 547/547 [00:56<00:00, 9.
  76it/s]
53 Validating:
               0% l
                          | 0/157 [00:00<?, ?it/s]
```

```
53 Train Loss: 0.5910 Acc: 0.6877
54 Validating: 100%| | 157/157 [00:22<00:00, 6
  .96it/s]
55 Training: 0%| | 0/547 [00:00<?, ?it/s]Val
  Loss: 0.5997 Acc: 0.6672
56 Epoch 10/20
57 -----
58 Training: 100%| 547/547 [00:55<00:00, 9.
  81it/sl
59 Validating: 0%| | 0/157 [00:00<?, ?it/s]
  Train Loss: 0.5765 Acc: 0.7023
60 Validating: 100%| | 157/157 [00:22<00:00, 6
  .92it/s]
61 Val Loss: 0.5602 Acc: 0.7088
62 Epoch 11/20
63 -----
64 Training: 100%| 547/547 [00:55<00:00, 9.
  82it/sl
65 Validating: 0%| | 0/157 [00:00<?, ?it/s]
  Train Loss: 0.5546 Acc: 0.7241
66 Validating: 100%| | 157/157 [00:21<00:00, 7
  .19it/s]
67 Val Loss: 0.4697 Acc: 0.7774
68 Training: 0%| | 0/547 [00:00<?, ?it/s]
  Epoch 12/20
69 -----
70 Training: 100%| | 547/547 [00:55<00:00, 9.
  92it/sl
71 Validating: 0%|
                         | 0/157 [00:00<?, ?it/s]
  Train Loss: 0.5299 Acc: 0.7362
72 Validating: 100%| | 157/157 [00:21<00:00,
                                               7
  .15it/s]
73 Val Loss: 0.4523 Acc: 0.7884
74 Training: 0%| | 0/547 [00:00<?, ?it/s]
  Epoch 13/20
75 -----
76 Training: 100%| 547/547 [00:55<00:00, 9.
  93it/s]
77 Train Loss: 0.4959 Acc: 0.7616
78 Validating: 100% | 157/157 [00:22<00:00, 7
  .10it/s]
```

```
79 Val Loss: 0.4172 Acc: 0.8100
            0%|
                         | 0/547 [00:00<?, ?it/s]
80 Training:
   Epoch 14/20
81 -----
82 Training: 100% | 547/547 [00:56<00:00, 9.
   68it/s]
83 Validating:
               0% l
                           | 0/157 [00:00<?, ?it/s]
   Train Loss: 0.4670 Acc: 0.7772
84 Validating: 100% | | 157/157 [00:23<00:00,
   6.66it/s]
85 Val Loss: 0.3617 Acc: 0.8316
86 Training: 0% | 0/547 [00:00<?, ?it/s]
   Epoch 15/20
87 -----
88 Training: 100% | 547/547 [00:56<00:00, 9.
   70it/sl
89 Validating: 0%|
                           | 0/157 [00:00<?, ?it/s]
   Train Loss: 0.4430 Acc: 0.7919
90 Validating: 100% | 157/157 [00:23<00:00,
   6.66it/s]
              0%| | 0/547 [00:00<?, ?it/s]Val
91 Training:
    Loss: 0.5168 Acc: 0.7680
92 Epoch 16/20
93 -----
94 Training: 100% | 547/547 [00:56<00:00, 9.
   69it/s]
95 Validating: 0%|
                           | 0/157 [00:00<?, ?it/s]
   Train Loss: 0.4156 Acc: 0.8048
96 Validating: 100% | 157/157 [00:22<00:00,
   7.02it/sl
97 Val Loss: 0.3103 Acc: 0.8594
98 Epoch 17/20
99 -----
100 Training: 100% | 547/547 [00:55<00:00, 9.
   84it/sl
               0%|
101 Validating:
                           | 0/157 [00:00<?, ?it/s]
   Train Loss: 0.3968 Acc: 0.8141
102 Validating: 100%| | 157/157 [00:22<00:00,
   6.98it/s]
103 Training: 0%| | 0/547 [00:00<?, ?it/s]Val
    Loss: 0.3350 Acc: 0.8562
```

```
104 Epoch 18/20
105 -----
106 Training: 100%
                   | 547/547 [00:55<00:00, 9.
   90it/s]
107 Validating:
                 0%|
                             | 0/157 [00:00<?, ?it/s]
   Train Loss: 0.3850 Acc: 0.8223
108 Validating: 100% | 157/157 [00:21<00:00,
   7.15it/s]
109 Val Loss: 0.2810 Acc: 0.8758
110 Epoch 19/20
111 -----
112 Training: 100% | 547/547 [00:55<00:00, 9.
   85it/s]
                 0%|
113 Validating:
                             | 0/157 [00:00<?, ?it/s]
   Train Loss: 0.3675 Acc: 0.8306
114 Validating: 100% | | 157/157 [00:22<00:00,
   6.99it/s]
115 Val Loss: 0.2680 Acc: 0.8808
116 Epoch 20/20
117 -----
118 Training: 100% | 547/547 [00:55<00:00, 9.
   90it/s]
119 Train Loss: 0.3605 Acc: 0.8366
120 Validating: 100% | 157/157 [00:33<00:00,
   4.75it/s]
121 Val Loss: 0.2326 Acc: 0.8934
122 Traceback (most recent call last):
     File "E:\desktop\DeepLearning\cat_vs_dog\
123
   resnet_no_attention.py", line 310, in <module>
124
       model = train_model(model, criterion, optimizer
   , num_epochs=20)
125
     File "E:\desktop\DeepLearning\cat_vs_dog\
   resnet_no_attention.py", line 274, in train_model
       plt.plot(train_accs, label='Train Acc')
126
127
     File "E:\miniconda3\envs\pytorch\Lib\site-packages
   \matplotlib\pyplot.py", line 3794, in plot
       return qca().plot(
128
129
     File "E:\miniconda3\envs\pytorch\Lib\site-packages
   \matplotlib\axes\_axes.py", line 1779, in plot
       lines = [*self._get_lines(self, *args, data=data
130
   , **kwargs)]
```

```
File "E:\miniconda3\envs\pytorch\Lib\site-packages
131
    \matplotlib\axes\_base.py", line 296, in __call__
132
        yield from self._plot_args(
133
      File "E:\miniconda3\envs\pytorch\Lib\site-packages
    \matplotlib\axes\_base.py", line 478, in _plot_args
        x, y = index_of(xy[-1])
134
135
      File "E:\miniconda3\envs\pytorch\Lib\site-packages
    \matplotlib\cbook.py", line 1719, in index_of
        y = _{check_1d(y)}
136
      File "E:\miniconda3\envs\pytorch\Lib\site-packages
137
    \matplotlib\cbook.py", line 1411, in _check_1d
        return np.atleast_1d(x)
138
      File "E:\miniconda3\envs\pytorch\Lib\site-packages
139
    \numpy\core\shape_base.py", line 65, in atleast_1d
140
        ary = asanyarray(ary)
141
      File "E:\miniconda3\envs\pytorch\Lib\site-packages
    \torch\_tensor.py", line 1225, in __array__
142
        return self.numpy()
143 TypeError: can't convert cuda: 0 device type tensor
    to numpy. Use Tensor.cpu() to copy the tensor to
    host memory first.
144
145 00000000000 1
146
```