```
(studiolab) studio-lab-user@default:~/final$ conda activate lisa
(lisa) studio-lab-user@default:~/final$ python models/resnet14.py
torch.Size([1, 10])
----------------------------------------------------------------
        Layer (type)               Output Shape         Param #
================================================================
            Conv2d-1           [-1, 64, 32, 32]           1,728
       BatchNorm2d-2           [-1, 64, 32, 32]             128
            Conv2d-3           [-1, 64, 32, 32]          36,864
       BatchNorm2d-4           [-1, 64, 32, 32]             128
            Conv2d-5           [-1, 64, 32, 32]          36,864
       BatchNorm2d-6           [-1, 64, 32, 32]             128
        BasicBlock-7           [-1, 64, 32, 32]               0
            Conv2d-8           [-1, 64, 32, 32]          36,864
       BatchNorm2d-9           [-1, 64, 32, 32]             128
           Conv2d-10           [-1, 64, 32, 32]          36,864
      BatchNorm2d-11           [-1, 64, 32, 32]             128
       BasicBlock-12           [-1, 64, 32, 32]               0
           Conv2d-13          [-1, 128, 16, 16]          73,728
      BatchNorm2d-14          [-1, 128, 16, 16]             256
           Conv2d-15          [-1, 128, 16, 16]         147,456
      BatchNorm2d-16          [-1, 128, 16, 16]             256
           Conv2d-17          [-1, 128, 16, 16]           8,192
      BatchNorm2d-18          [-1, 128, 16, 16]             256
       BasicBlock-19          [-1, 128, 16, 16]               0
           Conv2d-20          [-1, 128, 16, 16]         147,456
      BatchNorm2d-21          [-1, 128, 16, 16]             256
           Conv2d-22          [-1, 128, 16, 16]         147,456
      BatchNorm2d-23          [-1, 128, 16, 16]             256
       BasicBlock-24          [-1, 128, 16, 16]               0
           Conv2d-25            [-1, 256, 8, 8]         294,912
      BatchNorm2d-26            [-1, 256, 8, 8]             512
           Conv2d-27            [-1, 256, 8, 8]         589,824
      BatchNorm2d-28            [-1, 256, 8, 8]             512
           Conv2d-29            [-1, 256, 8, 8]          32,768
      BatchNorm2d-30            [-1, 256, 8, 8]             512
       BasicBlock-31            [-1, 256, 8, 8]               0
           Conv2d-32            [-1, 256, 8, 8]         589,824
      BatchNorm2d-33            [-1, 256, 8, 8]             512
           Conv2d-34            [-1, 256, 8, 8]         589,824
      BatchNorm2d-35            [-1, 256, 8, 8]             512
       BasicBlock-36            [-1, 256, 8, 8]               0
           Linear-37                   [-1, 10]          10,250
================================================================
Total params: 2,785,354
Trainable params: 2,785,354
Non-trainable params: 0
----------------------------------------------------------------
Input size (MB): 0.01
Forward/backward pass size (MB): 10.50
Params size (MB): 10.63
Estimated Total Size (MB): 21.14
----------------------------------------------------------------
None
(lisa) studio-lab-user@default:~/final$ python main.py
==> Preparing data..
Files already downloaded and verified
Files already downloaded and verified
==> Building model..

Epoch: 0
 [========================= 391/391 =========================>]  Step: 266ms | Tot: 28s675ms | Loss: 2.134 | Acc: 28.482% (14241/50000)
 [========================= 100/100 =========================>]  Step: 17ms | Tot: 1s875ms | Loss: 1.585 | Acc: 40.870% (4087/10000)
Saving..

Epoch: 1
 [========================= 391/391 =========================>]  Step: 45ms | Tot: 28s728ms | Loss: 1.530 | Acc: 43.862% (21931/50000)
 [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s881ms | Loss: 1.380 | Acc: 51.220% (5122/10000)
Saving..

Epoch: 2
 [========================= 391/391 =========================>]  Step: 46ms | Tot: 29s63ms | Loss: 1.291 | Acc: 53.672% (26836/50000)
 [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s915ms | Loss: 1.206 | Acc: 57.020% (5702/10000)
Saving..

Epoch: 3
 [========================= 391/391 =========================>]  Step: 45ms | Tot: 29s164ms | Loss: 1.050 | Acc: 62.730% (31365/50000)
 [========================= 100/100 =========================>]  Step: 18ms | Tot: 1s898ms | Loss: 0.993 | Acc: 65.090% (6509/10000)
Saving..

Epoch: 4
 [========================= 391/391 =========================>]  Step: 45ms | Tot: 29s334ms | Loss: 0.903 | Acc: 68.264% (34132/50000)
 [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s913ms | Loss: 0.937 | Acc: 68.310% (6831/10000)
Saving..

Epoch: 5
 [========================= 391/391 =========================>]  Step: 46ms | Tot: 29s336ms | Loss: 0.788 | Acc: 72.392% (36196/50000)
```

```
    [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s917ms | Loss: 0.811 | Acc: 71.420% (7142/10000)
Saving..

Epoch: 6
    [========================= 391/391 =========================>]  Step: 47ms | Tot: 29s387ms | Loss: 0.685 | Acc: 76.284% (38142/50000)
    [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s920ms | Loss: 0.834 | Acc: 72.440% (7244/10000)
Saving..

Epoch: 7
    [========================= 391/391 =========================>]  Step: 47ms | Tot: 29s454ms | Loss: 0.619 | Acc: 78.568% (39284/50000)
    [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s933ms | Loss: 0.792 | Acc: 74.010% (7401/10000)
Saving..

Epoch: 8
    [========================= 391/391 =========================>]  Step: 46ms | Tot: 29s528ms | Loss: 0.578 | Acc: 79.944% (39972/50000)
    [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s948ms | Loss: 0.835 | Acc: 73.100% (7310/10000)

Epoch: 9
    [========================= 391/391 =========================>]  Step: 46ms | Tot: 29s562ms | Loss: 0.540 | Acc: 81.510% (40755/50000)
    [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s923ms | Loss: 1.198 | Acc: 65.060% (6506/10000)

Epoch: 10
    [========================= 391/391 =========================>]  Step: 47ms | Tot: 29s572ms | Loss: 0.514 | Acc: 82.280% (41140/50000)
    [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s932ms | Loss: 0.693 | Acc: 76.410% (7641/10000)
Saving..

Epoch: 11
    [========================= 391/391 =========================>]  Step: 46ms | Tot: 29s708ms | Loss: 0.490 | Acc: 83.258% (41629/50000)
    [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s952ms | Loss: 0.836 | Acc: 74.440% (7444/10000)

Epoch: 12
    [========================= 391/391 =========================>]  Step: 47ms | Tot: 29s695ms | Loss: 0.467 | Acc: 83.778% (41889/50000)
    [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s948ms | Loss: 0.559 | Acc: 80.930% (8093/10000)
Saving..

Epoch: 13
    [========================= 391/391 =========================>]  Step: 44ms | Tot: 28s816ms | Loss: 0.450 | Acc: 84.672% (42336/50000)
    [========================= 100/100 =========================>]  Step: 18ms | Tot: 1s847ms | Loss: 0.669 | Acc: 78.590% (7859/10000)

Epoch: 14
    [========================= 391/391 =========================>]  Step: 44ms | Tot: 27s962ms | Loss: 0.434 | Acc: 84.978% (42489/50000)
    [========================= 100/100 =========================>]  Step: 17ms | Tot: 1s836ms | Loss: 0.550 | Acc: 81.710% (8171/10000)
Saving..

Epoch: 15
    [========================= 391/391 =========================>]  Step: 43ms | Tot: 27s723ms | Loss: 0.424 | Acc: 85.624% (42812/50000)
    [========================= 100/100 =========================>]  Step: 17ms | Tot: 1s809ms | Loss: 0.560 | Acc: 82.020% (8202/10000)
Saving..

Epoch: 16
    [========================= 391/391 =========================>]  Step: 42ms | Tot: 27s704ms | Loss: 0.418 | Acc: 85.670% (42835/50000)
    [========================= 100/100 =========================>]  Step: 17ms | Tot: 1s810ms | Loss: 0.481 | Acc: 83.720% (8372/10000)
Saving..

Epoch: 17
    [========================= 391/391 =========================>]  Step: 43ms | Tot: 27s623ms | Loss: 0.406 | Acc: 85.920% (42960/50000)
    [========================= 100/100 =========================>]  Step: 17ms | Tot: 1s815ms | Loss: 0.574 | Acc: 82.020% (8202/10000)

Epoch: 18
    [========================= 391/391 =========================>]  Step: 43ms | Tot: 27s638ms | Loss: 0.403 | Acc: 86.130% (43065/50000)
    [========================= 100/100 =========================>]  Step: 17ms | Tot: 1s799ms | Loss: 0.545 | Acc: 81.840% (8184/10000)

Epoch: 19
    [========================= 391/391 =========================>]  Step: 43ms | Tot: 27s569ms | Loss: 0.400 | Acc: 86.298% (43149/50000)
    [========================= 100/100 =========================>]  Step: 17ms | Tot: 1s816ms | Loss: 0.480 | Acc: 83.650% (8365/10000)

Epoch: 20
    [========================= 391/391 =========================>]  Step: 43ms | Tot: 27s639ms | Loss: 0.385 | Acc: 87.010% (43505/50000)
    [========================= 100/100 =========================>]  Step: 17ms | Tot: 1s826ms | Loss: 0.563 | Acc: 81.120% (8112/10000)

Epoch: 21
    [========================= 391/391 =========================>]  Step: 44ms | Tot: 27s724ms | Loss: 0.383 | Acc: 86.776% (43388/50000)
    [========================= 100/100 =========================>]  Step: 17ms | Tot: 1s839ms | Loss: 0.811 | Acc: 74.760% (7476/10000)

Epoch: 22
    [========================= 391/391 =========================>]  Step: 44ms | Tot: 27s833ms | Loss: 0.378 | Acc: 86.942% (43471/50000)
    [========================= 100/100 =========================>]  Step: 18ms | Tot: 1s838ms | Loss: 0.601 | Acc: 80.850% (8085/10000)

Epoch: 23
    [========================= 391/391 =========================>]  Step: 44ms | Tot: 27s972ms | Loss: 0.371 | Acc: 87.296% (43648/50000)
    [========================= 100/100 =========================>]  Step: 18ms | Tot: 1s848ms | Loss: 0.671 | Acc: 78.740% (7874/10000)

Epoch: 24
    [========================= 391/391 =========================>]  Step: 44ms | Tot: 28s127ms | Loss: 0.371 | Acc: 87.250% (43625/50000)
    [========================= 100/100 =========================>]  Step: 18ms | Tot: 1s840ms | Loss: 0.481 | Acc: 83.890% (8389/10000)
Saving..
```

Epoch: 25
[========================= 391/391 =========================>] Step: 45ms | Tot: 28s449ms | Loss: 0.362 | Acc: 87.548% (43774/50000)
[========================= 100/100 =========================>] Step: 17ms | Tot: 1s863ms | Loss: 0.482 | Acc: 84.160% (8416/10000)
Saving..

Epoch: 26
[========================= 391/391 =========================>] Step: 45ms | Tot: 28s638ms | Loss: 0.360 | Acc: 87.618% (43809/50000)
[========================= 100/100 =========================>] Step: 19ms | Tot: 1s868ms | Loss: 0.591 | Acc: 80.960% (8096/10000)

Epoch: 27
[========================= 391/391 =========================>] Step: 44ms | Tot: 28s740ms | Loss: 0.360 | Acc: 87.568% (43784/50000)
[========================= 100/100 =========================>] Step: 18ms | Tot: 1s842ms | Loss: 0.457 | Acc: 84.490% (8449/10000)
Saving..

Epoch: 28
[========================= 391/391 =========================>] Step: 44ms | Tot: 27s923ms | Loss: 0.357 | Acc: 87.732% (43866/50000)
[========================= 100/100 =========================>] Step: 18ms | Tot: 1s817ms | Loss: 0.579 | Acc: 81.800% (8180/10000)

Epoch: 29
[========================= 391/391 =========================>] Step: 44ms | Tot: 27s772ms | Loss: 0.345 | Acc: 88.078% (44039/50000)
[========================= 100/100 =========================>] Step: 17ms | Tot: 1s831ms | Loss: 0.448 | Acc: 85.080% (8508/10000)
Saving..

Epoch: 30
[========================= 391/391 =========================>] Step: 43ms | Tot: 27s680ms | Loss: 0.350 | Acc: 87.832% (43916/50000)
[========================= 100/100 =========================>] Step: 17ms | Tot: 1s830ms | Loss: 0.443 | Acc: 85.330% (8533/10000)
Saving..

Epoch: 31
[========================= 391/391 =========================>] Step: 43ms | Tot: 27s683ms | Loss: 0.347 | Acc: 88.004% (44002/50000)
[========================= 100/100 =========================>] Step: 18ms | Tot: 1s812ms | Loss: 0.497 | Acc: 83.720% (8372/10000)

Epoch: 32
[========================= 391/391 =========================>] Step: 43ms | Tot: 27s640ms | Loss: 0.339 | Acc: 88.370% (44185/50000)
[========================= 100/100 =========================>] Step: 17ms | Tot: 1s797ms | Loss: 0.522 | Acc: 83.350% (8335/10000)

Epoch: 33
[========================= 391/391 =========================>] Step: 43ms | Tot: 27s732ms | Loss: 0.339 | Acc: 88.400% (44200/50000)
[========================= 100/100 =========================>] Step: 18ms | Tot: 1s816ms | Loss: 0.645 | Acc: 80.690% (8069/10000)

Epoch: 34
[========================= 391/391 =========================>] Step: 43ms | Tot: 27s859ms | Loss: 0.332 | Acc: 88.594% (44297/50000)
[========================= 100/100 =========================>] Step: 17ms | Tot: 1s838ms | Loss: 0.580 | Acc: 82.030% (8203/10000)

Epoch: 35
[========================= 391/391 =========================>] Step: 45ms | Tot: 28s3ms | Loss: 0.332 | Acc: 88.596% (44298/50000)
[========================= 100/100 =========================>] Step: 17ms | Tot: 1s817ms | Loss: 0.493 | Acc: 83.090% (8309/10000)

Epoch: 36
^CTraceback (most recent call last):1 ....]   Step: 72ms | Tot: 8s206ms | Loss: 0.323 | Acc: 88.743% (13063/14720)
  File "/home/studio-lab-user/final/main.py", line 138, in <module>
    train(epoch)
  File "/home/studio-lab-user/final/main.py", line 90, in train
    loss.backward()
  File "/home/studio-lab-user/.conda/envs/lisa/lib/python3.10/site-packages/torch/_tensor.py", line 396, in backward
    torch.autograd.backward(self, gradient, retain_graph, create_graph, inputs=inputs)
  File "/home/studio-lab-user/.conda/envs/lisa/lib/python3.10/site-packages/torch/autograd/__init__.py", line 173, in backward
    Variable._execution_engine.run_backward(# Calls into the C++ engine to run the backward pass
KeyboardInterrupt

(lisa) studio-lab-user@default:~/final$ python main.py --resume --lr=0.01
==> Preparing data..
Files already downloaded and verified
Files already downloaded and verified
==> Building model..
==> Resuming from checkpoint..

Epoch: 30
[========================= 391/391 =========================>] Step: 255ms | Tot: 28s261ms | Loss: 0.198 | Acc: 93.276% (46638/50000)
[========================= 100/100 =========================>] Step: 18ms | Tot: 1s829ms | Loss: 0.245 | Acc: 91.900% (9190/10000)
Saving..

Epoch: 31
[========================= 391/391 =========================>] Step: 44ms | Tot: 28s351ms | Loss: 0.151 | Acc: 94.938% (47469/50000)
[========================= 100/100 =========================>] Step: 18ms | Tot: 1s841ms | Loss: 0.230 | Acc: 92.340% (9234/10000)
Saving..

Epoch: 32
[========================= 391/391 =========================>] Step: 44ms | Tot: 28s565ms | Loss: 0.132 | Acc: 95.600% (47800/50000)
[========================= 100/100 =========================>] Step: 18ms | Tot: 1s878ms | Loss: 0.229 | Acc: 92.280% (9228/10000)

Epoch: 33
[========================= 391/391 =========================>] Step: 45ms | Tot: 28s753ms | Loss: 0.120 | Acc: 95.940% (47970/50000)
[========================= 100/100 =========================>] Step: 17ms | Tot: 1s865ms | Loss: 0.230 | Acc: 92.500% (9250/10000)
Saving..
Epoch: 34
[========================= 391/391 =========================>] Step: 45ms | Tot: 28s865ms | Loss: 0.109 | Acc: 96.434% (48217/50000)

```
[========================= 100/100 =========================>]  Step: 18ms | Tot: 1s871ms | Loss: 0.226 | Acc: 92.750% (9275/10000)
Saving..

Epoch: 35
[========================= 391/391 =========================>]  Step: 45ms | Tot: 29s47ms | Loss: 0.100 | Acc: 96.668% (48334/50000)
[========================= 100/100 =========================>]  Step: 19ms | Tot: 1s907ms | Loss: 0.229 | Acc: 92.680% (9268/10000)

Epoch: 36
[========================= 391/391 =========================>]  Step: 45ms | Tot: 29s142ms | Loss: 0.088 | Acc: 97.076% (48538/50000)
[========================= 100/100 =========================>]  Step: 18ms | Tot: 1s905ms | Loss: 0.233 | Acc: 92.620% (9262/10000)

Epoch: 37
[========================= 391/391 =========================>]  Step: 46ms | Tot: 29s302ms | Loss: 0.084 | Acc: 97.226% (48613/50000)
[========================= 100/100 =========================>]  Step: 19ms | Tot: 1s912ms | Loss: 0.240 | Acc: 92.510% (9251/10000)

Epoch: 38
[========================= 391/391 =========================>]  Step: 45ms | Tot: 29s301ms | Loss: 0.078 | Acc: 97.476% (48738/50000)
[========================= 100/100 =========================>]  Step: 19ms | Tot: 1s889ms | Loss: 0.243 | Acc: 92.440% (9244/10000)

Epoch: 39
[========================= 391/391 =========================>]  Step: 46ms | Tot: 29s283ms | Loss: 0.070 | Acc: 97.768% (48884/50000)
[========================= 100/100 =========================>]  Step: 18ms | Tot: 1s911ms | Loss: 0.242 | Acc: 92.680% (9268/10000)

Epoch: 40
[========================= 391/391 =========================>]  Step: 46ms | Tot: 29s259ms | Loss: 0.064 | Acc: 97.988% (48994/50000)
[========================= 100/100 =========================>]  Step: 18ms | Tot: 1s908ms | Loss: 0.246 | Acc: 92.820% (9282/10000)
Saving..

Epoch: 41
[========================= 391/391 =========================>]  Step: 46ms | Tot: 29s436ms | Loss: 0.059 | Acc: 98.170% (49085/50000)
[========================= 100/100 =========================>]  Step: 19ms | Tot: 1s934ms | Loss: 0.261 | Acc: 92.130% (9213/10000)

Epoch: 42
^CTraceback (most recent call last):1 ...........................]   Step: 75ms | Tot: 10s749ms | Loss: 0.059 | Acc: 98.033% (17944/18304)
  File "/home/studio-lab-user/final/main.py", line 138, in <module>
    train(epoch)
  File "/home/studio-lab-user/final/main.py", line 93, in train
    train_loss += loss.item()
KeyboardInterrupt

(lisa) studio-lab-user@default:~/final$ python main.py --resume --lr=0.001
==> Preparing data..
Files already downloaded and verified
Files already downloaded and verified
==> Building model..
==> Resuming from checkpoint..

Epoch: 40
[========================= 391/391 =========================>]  Step: 272ms | Tot: 29s524ms | Loss: 0.051 | Acc: 98.526% (49263/50000)
[========================= 100/100 =========================>]  Step: 19ms | Tot: 1s922ms | Loss: 0.224 | Acc: 93.370% (9337/10000)
Saving..

Epoch: 41
[========================= 391/391 =========================>]  Step: 45ms | Tot: 29s451ms | Loss: 0.044 | Acc: 98.776% (49388/50000)
[========================= 100/100 =========================>]  Step: 19ms | Tot: 1s950ms | Loss: 0.221 | Acc: 93.480% (9348/10000)
Saving..

Epoch: 42
[========================= 391/391 =========================>]  Step: 46ms | Tot: 29s543ms | Loss: 0.040 | Acc: 98.946% (49473/50000)
[========================= 100/100 =========================>]  Step: 18ms | Tot: 1s939ms | Loss: 0.223 | Acc: 93.460% (9346/10000)

Epoch: 43
[========================= 391/391 =========================>]  Step: 47ms | Tot: 29s638ms | Loss: 0.041 | Acc: 98.908% (49454/50000)
[========================= 100/100 =========================>]  Step: 18ms | Tot: 1s942ms | Loss: 0.222 | Acc: 93.380% (9338/10000)

Epoch: 44
[========================= 391/391 =========================>]  Step: 46ms | Tot: 29s608ms | Loss: 0.039 | Acc: 98.980% (49490/50000)
[========================= 100/100 =========================>]  Step: 19ms | Tot: 1s971ms | Loss: 0.222 | Acc: 93.450% (9345/10000)

Epoch: 45
[========================= 391/391 =========================>]  Step: 46ms | Tot: 29s689ms | Loss: 0.038 | Acc: 98.986% (49493/50000)
[========================= 100/100 =========================>]  Step: 19ms | Tot: 1s989ms | Loss: 0.224 | Acc: 93.450% (9345/10000)

Epoch: 46
^CTraceback (most recent call last): ...........................]   Step: 76ms | Tot: 2s907ms | Loss: 0.034 | Acc: 99.239% (4954/4992)
  File "/home/studio-lab-user/final/main.py", line 138, in <module>
    train(epoch)
  File "/home/studio-lab-user/final/main.py", line 93, in train
    train_loss += loss.item()
KeyboardInterrupt

(lisa) studio-lab-user@default:~/final$ python main.py --resume --lr=0.0001
==> Preparing data..
Files already downloaded and verified
Files already downloaded and verified
==> Building model..
==> Resuming from checkpoint..
```

```
Epoch: 41
 [========================= 391/391 =========================>]  Step: 271ms | Tot: 29s637ms | Loss: 0.042 | Acc: 98.906% (49453/50000)
 [========================= 100/100 =========================>]  Step: 18ms | Tot: 1s914ms | Loss: 0.222 | Acc: 93.360% (9336/10000)

Epoch: 42
 [========================= 391/391 =========================>]  Step: 46ms | Tot: 29s556ms | Loss: 0.041 | Acc: 98.890% (49445/50000)
 [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s908ms | Loss: 0.222 | Acc: 93.370% (9337/10000)

Epoch: 43
 [========================= 391/391 =========================>]  Step: 47ms | Tot: 29s572ms | Loss: 0.042 | Acc: 98.906% (49453/50000)
 [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s923ms | Loss: 0.221 | Acc: 93.430% (9343/10000)

Epoch: 44
 [========================= 391/391 =========================>]  Step: 46ms | Tot: 29s556ms | Loss: 0.042 | Acc: 98.818% (49409/50000)
 [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s911ms | Loss: 0.221 | Acc: 93.440% (9344/10000)

Epoch: 45
 [========================= 391/391 =========================>]  Step: 46ms | Tot: 29s590ms | Loss: 0.041 | Acc: 98.904% (49452/50000)
 [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s936ms | Loss: 0.221 | Acc: 93.400% (9340/10000)

Epoch: 46
 [========================= 391/391 =========================>]  Step: 45ms | Tot: 29s582ms | Loss: 0.040 | Acc: 98.968% (49484/50000)
 [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s941ms | Loss: 0.220 | Acc: 93.450% (9345/10000)

Epoch: 47
 [========================= 391/391 =========================>]  Step: 45ms | Tot: 29s585ms | Loss: 0.040 | Acc: 98.970% (49485/50000)
 [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s933ms | Loss: 0.222 | Acc: 93.490% (9349/10000)
Saving..

Epoch: 48
 [========================= 391/391 =========================>]  Step: 46ms | Tot: 29s611ms | Loss: 0.042 | Acc: 98.882% (49441/50000)
 [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s912ms | Loss: 0.220 | Acc: 93.470% (9347/10000)

Epoch: 49
 [========================= 391/391 =========================>]  Step: 46ms | Tot: 29s536ms | Loss: 0.041 | Acc: 98.922% (49461/50000)
 [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s932ms | Loss: 0.221 | Acc: 93.540% (9354/10000)
Saving..

Epoch: 50
 [========================= 391/391 =========================>]  Step: 46ms | Tot: 29s597ms | Loss: 0.040 | Acc: 98.980% (49490/50000)
 [========================= 100/100 =========================>]  Step: 18ms | Tot: 1s946ms | Loss: 0.219 | Acc: 93.500% (9350/10000)

Epoch: 51
 [========================= 391/391 =========================>]  Step: 46ms | Tot: 29s612ms | Loss: 0.040 | Acc: 98.924% (49462/50000)
 [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s937ms | Loss: 0.221 | Acc: 93.550% (9355/10000)
Saving..

Epoch: 52
 [========================= 391/391 =========================>]  Step: 46ms | Tot: 29s702ms | Loss: 0.038 | Acc: 99.044% (49522/50000)
 [========================= 100/100 =========================>]  Step: 20ms | Tot: 1s953ms | Loss: 0.222 | Acc: 93.530% (9353/10000)

Epoch: 53
 [========================= 391/391 =========================>]  Step: 45ms | Tot: 29s697ms | Loss: 0.039 | Acc: 99.002% (49501/50000)
 [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s934ms | Loss: 0.221 | Acc: 93.510% (9351/10000)

Epoch: 54
 [========================= 391/391 =========================>]  Step: 47ms | Tot: 29s738ms | Loss: 0.039 | Acc: 99.002% (49501/50000)
 [========================= 100/100 =========================>]  Step: 19ms | Tot: 1s960ms | Loss: 0.222 | Acc: 93.320% (9332/10000)

Epoch: 55
 [========================= 391/391 =========================>]  Step: 46ms | Tot: 29s672ms | Loss: 0.039 | Acc: 98.982% (49491/50000)
 [========================= 100/100 =========================>]  Step: 18ms | Tot: 1s965ms | Loss: 0.221 | Acc: 93.480% (9348/10000)

Epoch: 56
^CTraceback (most recent call last):1 ...........................]   Step: 75ms | Tot: 12s568ms | Loss: 0.039 | Acc: 99.012% (21038/21248)
  File "/home/studio-lab-user/final/main.py", line 138, in <module>
    train(epoch)
  File "/home/studio-lab-user/final/main.py", line 93, in train
    train_loss += loss.item()
KeyboardInterrupt

(lisa) studio-lab-user@default:~/final$ python main.py --resume --lr=0.00001
==> Preparing data..
Files already downloaded and verified
Files already downloaded and verified
==> Building model..
==> Resuming from checkpoint..

Epoch: 51
 [========================= 391/391 =========================>]  Step: 260ms | Tot: 29s495ms | Loss: 0.039 | Acc: 98.950% (49475/50000)
 [========================= 100/100 =========================>]  Step: 18ms | Tot: 1s866ms | Loss: 0.221 | Acc: 93.420% (9342/10000)

Epoch: 52
 [========================= 391/391 =========================>]  Step: 43ms | Tot: 28s139ms | Loss: 0.039 | Acc: 99.002% (49501/50000)
 [========================= 100/100 =========================>]  Step: 17ms | Tot: 1s844ms | Loss: 0.221 | Acc: 93.480% (9348/10000)
```

Epoch: 53
[======================== 391/391 ========================>] Step: 43ms | Tot: 27s848ms | Loss: 0.040 | Acc: 98.942% (49471/50000)
[======================== 100/100 ========================>] Step: 18ms | Tot: 1s837ms | Loss: 0.222 | Acc: 93.490% (9349/10000)

Epoch: 54
[======================== 391/391 ========================>] Step: 43ms | Tot: 27s700ms | Loss: 0.039 | Acc: 98.970% (49485/50000)
[======================== 100/100 ========================>] Step: 18ms | Tot: 1s826ms | Loss: 0.221 | Acc: 93.520% (9352/10000)

Epoch: 55
[======================== 391/391 ========================>] Step: 43ms | Tot: 27s621ms | Loss: 0.039 | Acc: 98.982% (49491/50000)
[======================== 100/100 ========================>] Step: 17ms | Tot: 1s798ms | Loss: 0.222 | Acc: 93.480% (9348/10000)

Epoch: 56
[======================== 391/391 ========================>] Step: 43ms | Tot: 27s667ms | Loss: 0.039 | Acc: 98.994% (49497/50000)
[======================== 100/100 ========================>] Step: 17ms | Tot: 1s865ms | Loss: 0.220 | Acc: 93.460% (9346/10000)

Epoch: 57
[======================== 391/391 ========================>] Step: 43ms | Tot: 27s836ms | Loss: 0.040 | Acc: 98.910% (49455/50000)
[======================== 100/100 ========================>] Step: 17ms | Tot: 1s825ms | Loss: 0.221 | Acc: 93.440% (9344/10000)

Epoch: 58
[======================== 391/391 ========================>] Step: 43ms | Tot: 27s923ms | Loss: 0.038 | Acc: 99.014% (49507/50000)
[======================== 100/100 ========================>] Step: 17ms | Tot: 1s863ms | Loss: 0.221 | Acc: 93.440% (9344/10000)

Epoch: 59
[======================== 391/391 ========================>] Step: 44ms | Tot: 28s57ms | Loss: 0.040 | Acc: 98.932% (49466/50000)
[======================== 100/100 ========================>] Step: 18ms | Tot: 1s849ms | Loss: 0.220 | Acc: 93.380% (9338/10000)

Epoch: 60
[======================== 391/391 ========================>] Step: 45ms | Tot: 28s163ms | Loss: 0.039 | Acc: 99.038% (49519/50000)
[======================== 100/100 ========================>] Step: 18ms | Tot: 1s838ms | Loss: 0.221 | Acc: 93.570% (9357/10000)
Saving..

Epoch: 61
[======================== 391/391 ========================>] Step: 44ms | Tot: 28s378ms | Loss: 0.039 | Acc: 98.958% (49479/50000)
[======================== 100/100 ========================>] Step: 18ms | Tot: 1s862ms | Loss: 0.221 | Acc: 93.460% (9346/10000)

Epoch: 62
[======================== 391/391 ========================>] Step: 45ms | Tot: 28s611ms | Loss: 0.039 | Acc: 98.988% (49494/50000)
[======================== 100/100 ========================>] Step: 18ms | Tot: 1s885ms | Loss: 0.222 | Acc: 93.480% (9348/10000)

Epoch: 63
[======================== 391/391 ========================>] Step: 45ms | Tot: 28s819ms | Loss: 0.040 | Acc: 98.932% (49466/50000)
[======================== 100/100 ========================>] Step: 19ms | Tot: 1s891ms | Loss: 0.221 | Acc: 93.410% (9341/10000)

Epoch: 64
[======================== 391/391 ========================>] Step: 45ms | Tot: 28s999ms | Loss: 0.040 | Acc: 98.930% (49465/50000)
[======================== 100/100 ========================>] Step: 18ms | Tot: 1s931ms | Loss: 0.222 | Acc: 93.440% (9344/10000)
Epoch: 65
[======================== 391/391 ========================>] Step: 45ms | Tot: 29s165ms | Loss: 0.039 | Acc: 98.982% (49491/50000)
[======================== 100/100 ========================>] Step: 19ms | Tot: 1s926ms | Loss: 0.221 | Acc: 93.530% (9353/10000)

Epoch: 66
[======================== 391/391 ========================>] Step: 46ms | Tot: 29s275ms | Loss: 0.039 | Acc: 99.000% (49500/50000)
[======================== 100/100 ========================>] Step: 18ms | Tot: 1s905ms | Loss: 0.223 | Acc: 93.410% (9341/10000)

Epoch: 67
[======================== 391/391 ========================>] Step: 46ms | Tot: 29s304ms | Loss: 0.039 | Acc: 98.948% (49474/50000)
[======================== 100/100 ========================>] Step: 19ms | Tot: 1s946ms | Loss: 0.222 | Acc: 93.420% (9342/10000)

Epoch: 68
[======================== 391/391 ========================>] Step: 46ms | Tot: 29s348ms | Loss: 0.040 | Acc: 98.936% (49468/50000)
[======================== 100/100 ========================>] Step: 19ms | Tot: 1s926ms | Loss: 0.222 | Acc: 93.390% (9339/10000)

Epoch: 69
[======================== 391/391 ========================>] Step: 45ms | Tot: 29s377ms | Loss: 0.039 | Acc: 98.964% (49482/50000)
[======================== 100/100 ========================>] Step: 18ms | Tot: 1s903ms | Loss: 0.220 | Acc: 93.480% (9348/10000)

Epoch: 70
[======================== 391/391 ========================>] Step: 45ms | Tot: 29s371ms | Loss: 0.038 | Acc: 99.026% (49513/50000)
[======================== 100/100 ========================>] Step: 19ms | Tot: 1s974ms | Loss: 0.221 | Acc: 93.430% (9343/10000)

Epoch: 71
[======================== 391/391 ========================>] Step: 46ms | Tot: 29s435ms | Loss: 0.039 | Acc: 99.004% (49502/50000)
[======================== 100/100 ========================>] Step: 18ms | Tot: 1s902ms | Loss: 0.223 | Acc: 93.520% (9352/10000)

Epoch: 72
[======================== 391/391 ========================>] Step: 47ms | Tot: 29s497ms | Loss: 0.039 | Acc: 98.928% (49464/50000)
[======================== 100/100 ========================>] Step: 19ms | Tot: 1s928ms | Loss: 0.222 | Acc: 93.510% (9351/10000)

Epoch: 73
[======================== 391/391 ========================>] Step: 46ms | Tot: 29s481ms | Loss: 0.039 | Acc: 98.954% (49477/50000)
[======================== 100/100 ========================>] Step: 19ms | Tot: 1s926ms | Loss: 0.220 | Acc: 93.430% (9343/10000)

Epoch: 74
[======================== 391/391 ========================>] Step: 47ms | Tot: 29s520ms | Loss: 0.039 | Acc: 98.948% (49474/50000)
[======================== 100/100 ========================>] Step: 19ms | Tot: 1s954ms | Loss: 0.220 | Acc: 93.490% (9349/10000)

Epoch: 75
[========================= 391/391 =========================>]   Step: 47ms | Tot: 29s522ms | Loss: 0.039 | Acc: 98.994% (49497/50000)
[========================= 100/100 =========================>]   Step: 19ms | Tot: 1s933ms | Loss: 0.220 | Acc: 93.490% (9349/10000)

Epoch: 76
[========================= 391/391 =========================>]   Step: 46ms | Tot: 29s547ms | Loss: 0.039 | Acc: 98.984% (49492/50000)
[========================= 100/100 =========================>]   Step: 19ms | Tot: 1s941ms | Loss: 0.221 | Acc: 93.480% (9348/10000)

Epoch: 77
[========================= 391/391 =========================>]   Step: 46ms | Tot: 29s623ms | Loss: 0.039 | Acc: 98.950% (49475/50000)
[========================= 100/100 =========================>]   Step: 19ms | Tot: 1s952ms | Loss: 0.221 | Acc: 93.480% (9348/10000)

Epoch: 78
[========================= 391/391 =========================>]   Step: 45ms | Tot: 29s563ms | Loss: 0.040 | Acc: 98.908% (49454/50000)
[========================= 100/100 =========================>]   Step: 18ms | Tot: 1s933ms | Loss: 0.222 | Acc: 93.410% (9341/10000)

Epoch: 79
[========================= 391/391 =========================>]   Step: 47ms | Tot: 29s643ms | Loss: 0.039 | Acc: 98.972% (49486/50000)
[========================= 100/100 =========================>]   Step: 19ms | Tot: 1s947ms | Loss: 0.222 | Acc: 93.450% (9345/10000)

Epoch: 80
[========================= 391/391 =========================>]   Step: 46ms | Tot: 29s609ms | Loss: 0.040 | Acc: 98.966% (49483/50000)
[========================= 100/100 =========================>]   Step: 20ms | Tot: 1s948ms | Loss: 0.222 | Acc: 93.480% (9348/10000)

Epoch: 81
^CTraceback (most recent call last):1 ==>.........................]   Step: 74ms | Tot: 17s562ms | Loss: 0.039 | Acc: 98.990% (29396/29696)
    File "/home/studio-lab-user/final/main.py", line 138, in <module>
      train(epoch)
    File "/home/studio-lab-user/final/main.py", line 93, in train
      train_loss += loss.item()
KeyboardInterrupt

(lisa) studio-lab-user@default:~/final$