C:\Users\19024\AppData\Local\Programs\Python\Python39\python.exe "C:/Users/19024/Desktop/刘德重要文件/Semester 1/Project Module/Model-Compression-Demo-master/kd/trainer.py"

C:\Users\19024\AppData\Local\Programs\Python\Python39\lib\site-packages\torchvision\datasets\mnist.py:498: UserWarning: The given NumPy array is not writable, and PyTorch does not support non-writable tensors. This means writing to this tensor will result in undefined behavior. You may want to copy the array to protect its data or make it writable before converting it to a tensor. This type of warning will be suppressed for the rest of this program. (Triggered internally at C:\actions-runner\\_work\pytorch\pytorch\builder\windows\pytorch\torch\csrc\utils\tensor\_numpy.cpp:178.)

return torch.from\_numpy(parsed.astype(m[2], copy=False)).view(\*s)

C:\Users\19024\AppData\Local\Programs\Python\Python39\lib\site-packages\torch\nn\functional.py:1320: UserWarning: dropout2d: Received a 2-D input to dropout2d, which is deprecated and will result in an error in a future release. To retain the behavior and silence this warning, please use dropout instead. Note that dropout2d exists to provide channel-wise dropout on inputs with 2 spatial dimensions, a channel dimension, and an optional batch dimension (i.e. 3D or 4D inputs).

warnings.warn(warn\_msg)

Train teacher\_net epoch 0: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 0: loss 1.3871, accuracy 0.4642

Test loss:0.5092, Test accuracy:85.90%

Train teacher\_net epoch 1: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 1: loss 0.2770, accuracy 0.8989

Test loss:0.2583, Test accuracy:90.50%

Train teacher\_net epoch 2: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 2: loss 0.2071, accuracy 0.9237

Test loss:0.2315, Test accuracy:91.59%

Train teacher\_net epoch 3: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 3: loss 0.1634, accuracy 0.9397

Test loss:0.2330, Test accuracy:91.52%

Train teacher\_net epoch 4: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 4: loss 0.1293, accuracy 0.9520

Test loss:0.2299, Test accuracy:91.89%

Train teacher\_net epoch 5: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 5: loss 0.0994, accuracy 0.9639

Test loss:0.2313, Test accuracy:92.41%

Train teacher\_net epoch 6: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 6: loss 0.0745, accuracy 0.9729

Test loss:0.2620, Test accuracy:92.24%

Train teacher\_net epoch 7: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 7: loss 0.0549, accuracy 0.9797

Test loss:0.3031, Test accuracy:92.09%

Train teacher\_net epoch 8: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 8: loss 0.0404, accuracy 0.9856

Test loss:0.3164, Test accuracy:92.28%

Train teacher\_net epoch 9: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 9: loss 0.0307, accuracy 0.9890

Test loss:0.3530, Test accuracy:92.10%

Train student\_net\_without\_distillation epoch 0: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 0: loss 0.9693, accuracy 0.6903

Test loss:0.8624, Test accuracy:70.08%

Train student\_net\_without\_distillation epoch 1: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 1: loss 0.8184, accuracy 0.7420

Test loss:0.8224, Test accuracy:71.86%

Train student\_net\_without\_distillation epoch 2: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 2: loss 0.7841, accuracy 0.7583

Test loss:0.8241, Test accuracy:75.86%

Train student\_net\_without\_distillation epoch 3: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 3: loss 0.7630, accuracy 0.7676

Test loss:0.7913, Test accuracy:74.84%

Train student\_net\_without\_distillation epoch 4: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 4: loss 0.7460, accuracy 0.7734

Test loss:0.7863, Test accuracy:76.38%

Train student\_net\_without\_distillation epoch 5: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 5: loss 0.7347, accuracy 0.7779

Test loss:0.7814, Test accuracy:76.17%

Train student\_net\_without\_distillation epoch 6: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 6: loss 0.7216, accuracy 0.7825

Test loss:0.7789, Test accuracy:76.15%

Train student\_net\_without\_distillation epoch 7: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 7: loss 0.6022, accuracy 0.7952

Test loss:0.5746, Test accuracy:78.63%

Train student\_net\_without\_distillation epoch 8: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 8: loss 0.4976, accuracy 0.8082

Test loss:0.5581, Test accuracy:79.04%

Train student\_net\_without\_distillation epoch 9: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 9: loss 0.4874, accuracy 0.8111

Test loss:0.5568, Test accuracy:78.94%

C:\Users\19024\AppData\Local\Programs\Python\Python39\lib\site-packages\torch\nn\functional.py:2886: UserWarning: reduction: 'mean' divides the total loss by both the batch size and the support size.'batchmean' divides only by the batch size, and aligns with the KL div math definition.'mean' will be changed to behave the same as 'batchmean' in the next major release.

warnings.warn(

Train student\_net\_with\_distillation epoch 0: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 0: loss 1.3304, accuracy 0.8095

Test loss:0.7701, Test accuracy:78.56%

Train student\_net\_with\_distillation epoch 1: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 1: loss 1.2503, accuracy 0.8144

Test loss:0.7498, Test accuracy:78.47%

Train student\_net\_with\_distillation epoch 2: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 2: loss 1.2180, accuracy 0.8178

Test loss:0.7259, Test accuracy:79.62%

Train student\_net\_with\_distillation epoch 3: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 3: loss 1.1912, accuracy 0.8217

Test loss:0.7334, Test accuracy:79.10%

Train student\_net\_with\_distillation epoch 4: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 4: loss 1.1727, accuracy 0.8236

Test loss:0.7607, Test accuracy:79.27%

Train student\_net\_with\_distillation epoch 5: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 5: loss 1.1545, accuracy 0.8259

Test loss:0.7549, Test accuracy:79.24%

Train student\_net\_with\_distillation epoch 6: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 6: loss 1.1412, accuracy 0.8266

Test loss:0.7031, Test accuracy:79.71%

Train student\_net\_with\_distillation epoch 7: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 7: loss 1.1297, accuracy 0.8295

Test loss:0.7327, Test accuracy:79.58%

Train student\_net\_with\_distillation epoch 8: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 8: loss 0.5144, accuracy 0.9115

Test loss:0.5092, Test accuracy:88.83%

Train student\_net\_with\_distillation epoch 9: 60000/60000, [-------------------------------------------------->] 100%

Train teacher\_net epoch 9: loss 0.3742, accuracy 0.9294

Test loss:0.5061, Test accuracy:89.06%

进程已结束,退出代码0