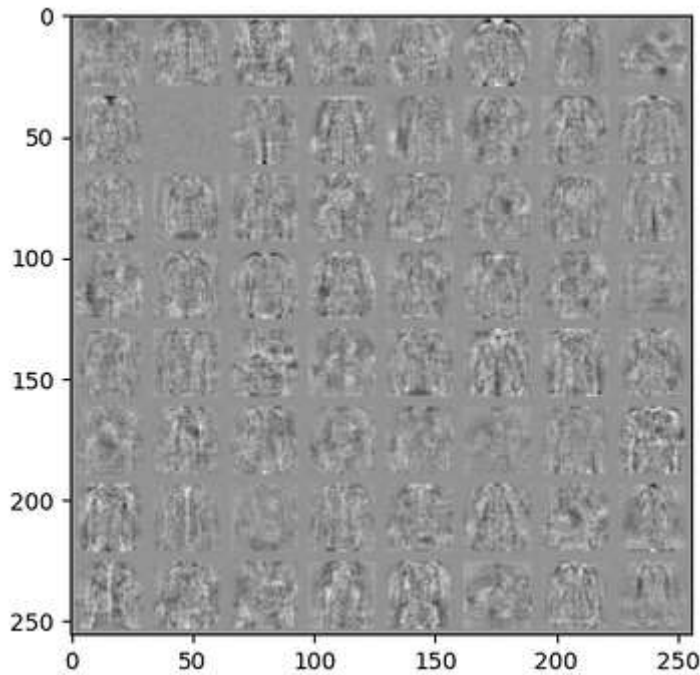


Homework 3

Run Cycle 1

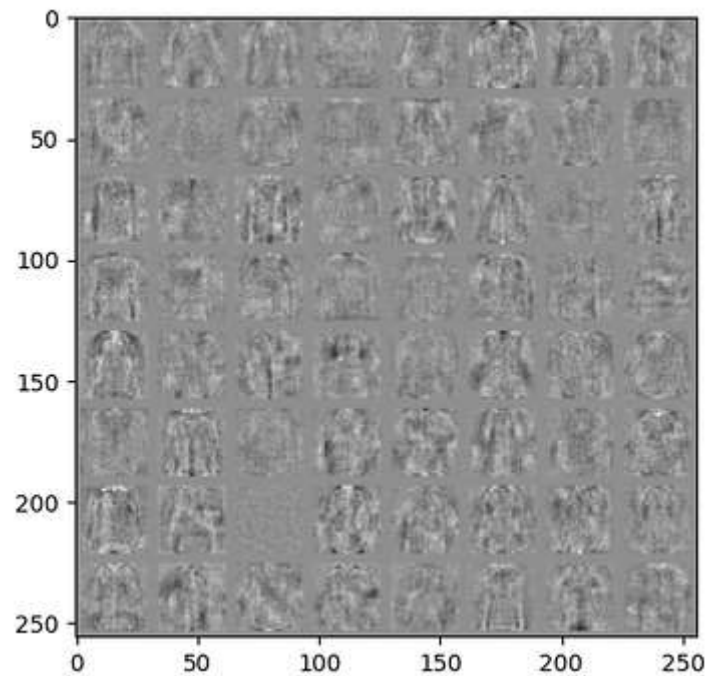
1. Learning Rate = 0.1,
2. Epochs = 30,
3. Batch Size = 64,
4. Hidden layers = 4,
5. Neurons = 72 (each hidden layer)



```
3.8799719729135975e-06
[ 2.28519426e-05 2.28519426e-05 2.28519426e-05 ... 1.00456131e-01
 9.77625794e-02 -9.85066357e-02]
Epoch 1/30, Train Loss: 0.5750, Test Loss: 0.6077, Train Accuracy: 0.7800, Test Accuracy: 0.7709
Epoch 2/30, Train Loss: 0.4199, Test Loss: 0.4607, Train Accuracy: 0.8453, Test Accuracy: 0.8289
Epoch 3/30, Train Loss: 0.4239, Test Loss: 0.4673, Train Accuracy: 0.8415, Test Accuracy: 0.8292
Epoch 4/30, Train Loss: 0.3992, Test Loss: 0.4559, Train Accuracy: 0.8523, Test Accuracy: 0.8355
Epoch 5/30, Train Loss: 0.3731, Test Loss: 0.4344, Train Accuracy: 0.8606, Test Accuracy: 0.8400
Epoch 6/30, Train Loss: 0.3269, Test Loss: 0.3928, Train Accuracy: 0.8791, Test Accuracy: 0.8518
Epoch 7/30, Train Loss: 0.3282, Test Loss: 0.3955, Train Accuracy: 0.8732, Test Accuracy: 0.8496
Epoch 8/30, Train Loss: 0.3783, Test Loss: 0.4493, Train Accuracy: 0.8622, Test Accuracy: 0.8408
Epoch 9/30, Train Loss: 0.2888, Test Loss: 0.3758, Train Accuracy: 0.8935, Test Accuracy: 0.8638
Epoch 10/30, Train Loss: 0.3139, Test Loss: 0.4064, Train Accuracy: 0.8819, Test Accuracy: 0.8569
Epoch 11/30, Train Loss: 0.2812, Test Loss: 0.3762, Train Accuracy: 0.8941, Test Accuracy: 0.8671
Epoch 12/30, Train Loss: 0.4708, Test Loss: 0.5557, Train Accuracy: 0.8480, Test Accuracy: 0.8240
Epoch 13/30, Train Loss: 0.2503, Test Loss: 0.3490, Train Accuracy: 0.9064, Test Accuracy: 0.8764
Epoch 14/30, Train Loss: 0.2517, Test Loss: 0.3607, Train Accuracy: 0.9064, Test Accuracy: 0.8721
Epoch 15/30, Train Loss: 0.2464, Test Loss: 0.3610, Train Accuracy: 0.9071, Test Accuracy: 0.8755
Epoch 16/30, Train Loss: 0.2403, Test Loss: 0.3637, Train Accuracy: 0.9086, Test Accuracy: 0.8737
Epoch 17/30, Train Loss: 0.2329, Test Loss: 0.3550, Train Accuracy: 0.9115, Test Accuracy: 0.8742
Epoch 18/30, Train Loss: 0.2429, Test Loss: 0.3757, Train Accuracy: 0.9068, Test Accuracy: 0.8692
Epoch 19/30, Train Loss: 0.2436, Test Loss: 0.3710, Train Accuracy: 0.9078, Test Accuracy: 0.8745
Epoch 20/30, Train Loss: 0.2352, Test Loss: 0.3735, Train Accuracy: 0.9105, Test Accuracy: 0.8742
Epoch 21/30, Train Loss: 0.2133, Test Loss: 0.3542, Train Accuracy: 0.9191, Test Accuracy: 0.8792
Epoch 22/30, Train Loss: 0.2050, Test Loss: 0.3617, Train Accuracy: 0.9223, Test Accuracy: 0.8813
Epoch 23/30, Train Loss: 0.2030, Test Loss: 0.3464, Train Accuracy: 0.9239, Test Accuracy: 0.8804
Epoch 24/30, Train Loss: 0.2740, Test Loss: 0.4154, Train Accuracy: 0.9021, Test Accuracy: 0.8647
Epoch 25/30, Train Loss: 0.1897, Test Loss: 0.3488, Train Accuracy: 0.9303, Test Accuracy: 0.8846
Epoch 26/30, Train Loss: 0.1896, Test Loss: 0.3675, Train Accuracy: 0.9279, Test Accuracy: 0.8811
Epoch 27/30, Train Loss: 0.1821, Test Loss: 0.3560, Train Accuracy: 0.9310, Test Accuracy: 0.8834
Epoch 28/30, Train Loss: 0.1953, Test Loss: 0.3682, Train Accuracy: 0.9268, Test Accuracy: 0.8795
Epoch 29/30, Train Loss: 0.4903, Test Loss: 0.6678, Train Accuracy: 0.8673, Test Accuracy: 0.8234
Epoch 30/30, Train Loss: 0.1834, Test Loss: 0.3658, Train Accuracy: 0.9292, Test Accuracy: 0.8803
```

Run Cycle 2

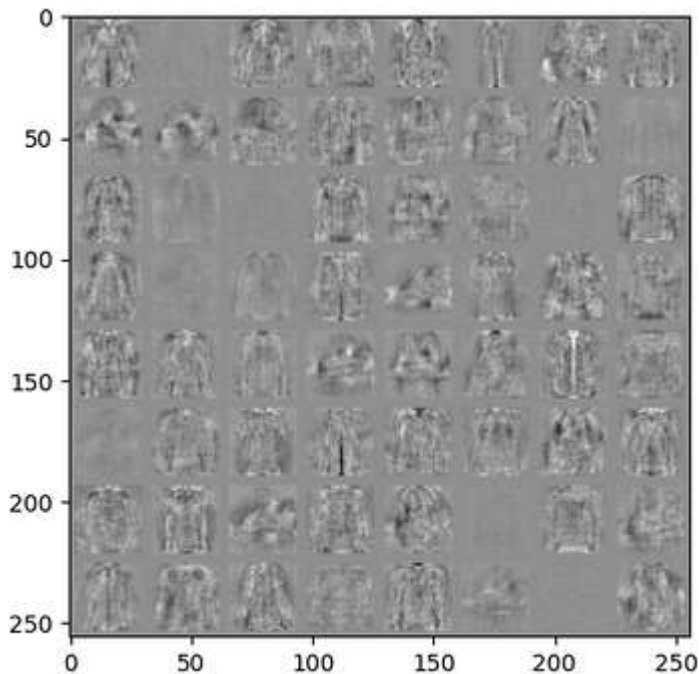
1. Learning Rate = 0.1,
2. Epochs = 20,
3. Batch Size = 128,
4. Hidden layers = 2,
5. Neurons = 64 (each hidden layer)



```
6.815396811027901e-06
[ 0.00087727  0.00087727  0.00087727 ...  0.09871273  0.10025664
 -0.1004649 ]
Epoch 1/20, Train Loss: 0.6653, Test Loss: 0.6946, Train Accuracy: 0.7431, Test Accuracy: 0.7342
Epoch 2/20, Train Loss: 0.4433, Test Loss: 0.4796, Train Accuracy: 0.8394, Test Accuracy: 0.8250
Epoch 3/20, Train Loss: 0.3989, Test Loss: 0.4401, Train Accuracy: 0.8545, Test Accuracy: 0.8351
Epoch 4/20, Train Loss: 0.4067, Test Loss: 0.4520, Train Accuracy: 0.8479, Test Accuracy: 0.8331
Epoch 5/20, Train Loss: 0.3654, Test Loss: 0.4122, Train Accuracy: 0.8643, Test Accuracy: 0.8455
Epoch 6/20, Train Loss: 0.3535, Test Loss: 0.4024, Train Accuracy: 0.8686, Test Accuracy: 0.8498
Epoch 7/20, Train Loss: 0.3261, Test Loss: 0.3844, Train Accuracy: 0.8796, Test Accuracy: 0.8631
Epoch 8/20, Train Loss: 0.3236, Test Loss: 0.3819, Train Accuracy: 0.8816, Test Accuracy: 0.8624
Epoch 9/20, Train Loss: 0.3309, Test Loss: 0.3900, Train Accuracy: 0.8777, Test Accuracy: 0.8592
Epoch 10/20, Train Loss: 0.3057, Test Loss: 0.3762, Train Accuracy: 0.8873, Test Accuracy: 0.8686
Epoch 11/20, Train Loss: 0.3042, Test Loss: 0.3707, Train Accuracy: 0.8885, Test Accuracy: 0.8645
Epoch 12/20, Train Loss: 0.3001, Test Loss: 0.3737, Train Accuracy: 0.8877, Test Accuracy: 0.8654
Epoch 13/20, Train Loss: 0.2783, Test Loss: 0.3568, Train Accuracy: 0.8971, Test Accuracy: 0.8712
Epoch 14/20, Train Loss: 0.2797, Test Loss: 0.3662, Train Accuracy: 0.8961, Test Accuracy: 0.8703
Epoch 15/20, Train Loss: 0.2574, Test Loss: 0.3444, Train Accuracy: 0.9057, Test Accuracy: 0.8791
Epoch 16/20, Train Loss: 0.2604, Test Loss: 0.3499, Train Accuracy: 0.9023, Test Accuracy: 0.8731
Epoch 17/20, Train Loss: 0.2668, Test Loss: 0.3620, Train Accuracy: 0.9020, Test Accuracy: 0.8718
Epoch 18/20, Train Loss: 0.2451, Test Loss: 0.3471, Train Accuracy: 0.9103, Test Accuracy: 0.8801
Epoch 19/20, Train Loss: 0.2689, Test Loss: 0.3721, Train Accuracy: 0.9016, Test Accuracy: 0.8700
Epoch 20/20, Train Loss: 0.2446, Test Loss: 0.3537, Train Accuracy: 0.9091, Test Accuracy: 0.8749
```

Run Cycle 3

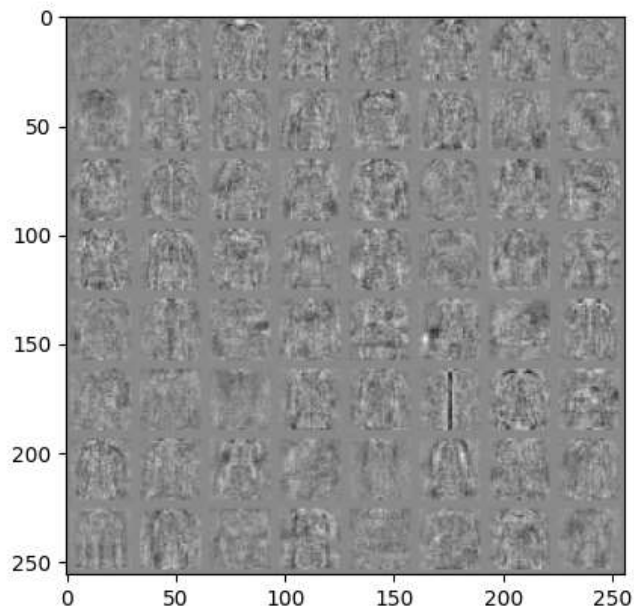
1. Learning Rate = 0.5,
2. Epochs = 20,
3. Batch Size = 128,
4. Hidden layers = 2,
5. Neurons = 72 (each hidden layer)



```
3.6855009921148826e-06
[-0.00098054 -0.00098054 -0.00098054 ... 0.09608586 0.09543602
-0.10400561]
Epoch 1/20, Train Loss: 0.5302, Test Loss: 0.5556, Train Accuracy: 0.8199, Test Accuracy: 0.8143
Epoch 2/20, Train Loss: 0.3860, Test Loss: 0.4278, Train Accuracy: 0.8547, Test Accuracy: 0.8401
Epoch 3/20, Train Loss: 0.3924, Test Loss: 0.4416, Train Accuracy: 0.8536, Test Accuracy: 0.8376
Epoch 4/20, Train Loss: 0.3568, Test Loss: 0.4177, Train Accuracy: 0.8668, Test Accuracy: 0.8444
Epoch 5/20, Train Loss: 0.3112, Test Loss: 0.3798, Train Accuracy: 0.8823, Test Accuracy: 0.8610
Epoch 6/20, Train Loss: 0.3394, Test Loss: 0.4150, Train Accuracy: 0.8728, Test Accuracy: 0.8496
Epoch 7/20, Train Loss: 0.3160, Test Loss: 0.3984, Train Accuracy: 0.8840, Test Accuracy: 0.8604
Epoch 8/20, Train Loss: 0.6994, Test Loss: 0.7637, Train Accuracy: 0.7932, Test Accuracy: 0.7741
Epoch 9/20, Train Loss: 0.2548, Test Loss: 0.3487, Train Accuracy: 0.9046, Test Accuracy: 0.8782
Epoch 10/20, Train Loss: 0.3428, Test Loss: 0.4369, Train Accuracy: 0.8596, Test Accuracy: 0.8310
Epoch 11/20, Train Loss: 0.2682, Test Loss: 0.3730, Train Accuracy: 0.8991, Test Accuracy: 0.8667
Epoch 12/20, Train Loss: 0.2433, Test Loss: 0.3570, Train Accuracy: 0.9082, Test Accuracy: 0.8756
Epoch 13/20, Train Loss: 0.2654, Test Loss: 0.3744, Train Accuracy: 0.8982, Test Accuracy: 0.8660
Epoch 14/20, Train Loss: 0.2235, Test Loss: 0.3458, Train Accuracy: 0.9153, Test Accuracy: 0.8784
Epoch 15/20, Train Loss: 0.2221, Test Loss: 0.3502, Train Accuracy: 0.9153, Test Accuracy: 0.8784
Epoch 16/20, Train Loss: 0.2135, Test Loss: 0.3551, Train Accuracy: 0.9175, Test Accuracy: 0.8812
Epoch 17/20, Train Loss: 0.2657, Test Loss: 0.4027, Train Accuracy: 0.8943, Test Accuracy: 0.8550
Epoch 18/20, Train Loss: 0.2153, Test Loss: 0.3641, Train Accuracy: 0.9182, Test Accuracy: 0.8771
Epoch 19/20, Train Loss: 0.2249, Test Loss: 0.3768, Train Accuracy: 0.9114, Test Accuracy: 0.8671
Epoch 20/20, Train Loss: 0.2071, Test Loss: 0.3640, Train Accuracy: 0.9208, Test Accuracy: 0.8800
```


Run cycle 4

- Learning Rate = 0.01,
- Epochs = 100,
- Batch Size = 128,
- Hidden layers = 1,
- Neurons = 72 (each hidden layer)



```
Epoch 72/100, Train Loss: 0.1989, Test Loss: 0.3376, Train Accuracy: 0.9315, Test Accuracy: 0.8820
Epoch 73/100, Train Loss: 0.1913, Test Loss: 0.3305, Train Accuracy: 0.9339, Test Accuracy: 0.8849
Epoch 74/100, Train Loss: 0.1902, Test Loss: 0.3316, Train Accuracy: 0.9346, Test Accuracy: 0.8853
Epoch 75/100, Train Loss: 0.1941, Test Loss: 0.3371, Train Accuracy: 0.9329, Test Accuracy: 0.8835
Epoch 76/100, Train Loss: 0.1939, Test Loss: 0.3376, Train Accuracy: 0.9322, Test Accuracy: 0.8837
Epoch 77/100, Train Loss: 0.1902, Test Loss: 0.3389, Train Accuracy: 0.9340, Test Accuracy: 0.8828
Epoch 78/100, Train Loss: 0.1905, Test Loss: 0.3396, Train Accuracy: 0.9327, Test Accuracy: 0.8805
Epoch 79/100, Train Loss: 0.1858, Test Loss: 0.3362, Train Accuracy: 0.9361, Test Accuracy: 0.8828
Epoch 80/100, Train Loss: 0.1876, Test Loss: 0.3378, Train Accuracy: 0.9345, Test Accuracy: 0.8836
Epoch 81/100, Train Loss: 0.1847, Test Loss: 0.3351, Train Accuracy: 0.9358, Test Accuracy: 0.8868
Epoch 82/100, Train Loss: 0.1795, Test Loss: 0.3350, Train Accuracy: 0.9385, Test Accuracy: 0.8870
Epoch 83/100, Train Loss: 0.1953, Test Loss: 0.3498, Train Accuracy: 0.9296, Test Accuracy: 0.8797
Epoch 84/100, Train Loss: 0.1910, Test Loss: 0.3507, Train Accuracy: 0.9325, Test Accuracy: 0.8811
Epoch 85/100, Train Loss: 0.1799, Test Loss: 0.3395, Train Accuracy: 0.9379, Test Accuracy: 0.8846
Epoch 86/100, Train Loss: 0.1899, Test Loss: 0.3503, Train Accuracy: 0.9337, Test Accuracy: 0.8799
Epoch 87/100, Train Loss: 0.1767, Test Loss: 0.3366, Train Accuracy: 0.9388, Test Accuracy: 0.8860
Epoch 88/100, Train Loss: 0.1757, Test Loss: 0.3364, Train Accuracy: 0.9391, Test Accuracy: 0.8878
Epoch 89/100, Train Loss: 0.1840, Test Loss: 0.3473, Train Accuracy: 0.9348, Test Accuracy: 0.8838
Epoch 90/100, Train Loss: 0.1687, Test Loss: 0.3337, Train Accuracy: 0.9429, Test Accuracy: 0.8850
Epoch 91/100, Train Loss: 0.1699, Test Loss: 0.3370, Train Accuracy: 0.9419, Test Accuracy: 0.8849
Epoch 92/100, Train Loss: 0.1691, Test Loss: 0.3398, Train Accuracy: 0.9423, Test Accuracy: 0.8849
Epoch 93/100, Train Loss: 0.1762, Test Loss: 0.3479, Train Accuracy: 0.9365, Test Accuracy: 0.8807
Epoch 94/100, Train Loss: 0.1706, Test Loss: 0.3401, Train Accuracy: 0.9413, Test Accuracy: 0.8864
Epoch 95/100, Train Loss: 0.1647, Test Loss: 0.3364, Train Accuracy: 0.9444, Test Accuracy: 0.8857
Epoch 96/100, Train Loss: 0.1631, Test Loss: 0.3382, Train Accuracy: 0.9443, Test Accuracy: 0.8859
Epoch 97/100, Train Loss: 0.1661, Test Loss: 0.3421, Train Accuracy: 0.9439, Test Accuracy: 0.8839
Epoch 98/100, Train Loss: 0.1613, Test Loss: 0.3352, Train Accuracy: 0.9459, Test Accuracy: 0.8860
Epoch 99/100, Train Loss: 0.1641, Test Loss: 0.3391, Train Accuracy: 0.9429, Test Accuracy: 0.8888
Epoch 100/100, Train Loss: 0.1636, Test Loss: 0.3437, Train Accuracy: 0.9442, Test Accuracy: 0.8850

Process finished with exit code 0
```

3.346745681059974e-06

[-0.00602718 -0.00602718 -0.00602718 ... 0.10093788 0.09539526
-0.0978953]

Epoch 1/100, Train Loss: 0.5661, Test Loss: 0.5871, Train Accuracy: 0.7971, Test Accuracy: 0.7830
Epoch 2/100, Train Loss: 0.4890, Test Loss: 0.5184, Train Accuracy: 0.8276, Test Accuracy: 0.8141
Epoch 3/100, Train Loss: 0.4514, Test Loss: 0.4829, Train Accuracy: 0.8396, Test Accuracy: 0.8240
Epoch 4/100, Train Loss: 0.4295, Test Loss: 0.4637, Train Accuracy: 0.8465, Test Accuracy: 0.8302
Epoch 5/100, Train Loss: 0.4089, Test Loss: 0.4468, Train Accuracy: 0.8570, Test Accuracy: 0.8405
Epoch 6/100, Train Loss: 0.4049, Test Loss: 0.4450, Train Accuracy: 0.8563, Test Accuracy: 0.8398
Epoch 7/100, Train Loss: 0.3826, Test Loss: 0.4218, Train Accuracy: 0.8648, Test Accuracy: 0.8489
Epoch 8/100, Train Loss: 0.3741, Test Loss: 0.4160, Train Accuracy: 0.8678, Test Accuracy: 0.8526
Epoch 9/100, Train Loss: 0.3654, Test Loss: 0.4084, Train Accuracy: 0.8704, Test Accuracy: 0.8531
Epoch 10/100, Train Loss: 0.3588, Test Loss: 0.4059, Train Accuracy: 0.8726, Test Accuracy: 0.8534
Epoch 11/100, Train Loss: 0.3543, Test Loss: 0.4016, Train Accuracy: 0.8753, Test Accuracy: 0.8585
Epoch 12/100, Train Loss: 0.3547, Test Loss: 0.4045, Train Accuracy: 0.8727, Test Accuracy: 0.8547
Epoch 13/100, Train Loss: 0.3444, Test Loss: 0.3950, Train Accuracy: 0.8770, Test Accuracy: 0.8599
Epoch 14/100, Train Loss: 0.3336, Test Loss: 0.3847, Train Accuracy: 0.8830, Test Accuracy: 0.8621
Epoch 15/100, Train Loss: 0.3305, Test Loss: 0.3824, Train Accuracy: 0.8821, Test Accuracy: 0.8639
Epoch 16/100, Train Loss: 0.3273, Test Loss: 0.3817, Train Accuracy: 0.8822, Test Accuracy: 0.8636
Epoch 17/100, Train Loss: 0.3251, Test Loss: 0.3810, Train Accuracy: 0.8837, Test Accuracy: 0.8615
Epoch 18/100, Train Loss: 0.3217, Test Loss: 0.3802, Train Accuracy: 0.8854, Test Accuracy: 0.8638
Epoch 19/100, Train Loss: 0.3157, Test Loss: 0.3760, Train Accuracy: 0.8864, Test Accuracy: 0.8634
Epoch 20/100, Train Loss: 0.3100, Test Loss: 0.3695, Train Accuracy: 0.8900, Test Accuracy: 0.8673
Epoch 21/100, Train Loss: 0.3033, Test Loss: 0.3673, Train Accuracy: 0.8925, Test Accuracy: 0.8702
Epoch 22/100, Train Loss: 0.2976, Test Loss: 0.3603, Train Accuracy: 0.8949, Test Accuracy: 0.8709
Epoch 23/100, Train Loss: 0.2968, Test Loss: 0.3629, Train Accuracy: 0.8944, Test Accuracy: 0.8734
Epoch 24/100, Train Loss: 0.3010, Test Loss: 0.3690, Train Accuracy: 0.8929, Test Accuracy: 0.8666
Epoch 25/100, Train Loss: 0.2962, Test Loss: 0.3627, Train Accuracy: 0.8952, Test Accuracy: 0.8706
Epoch 26/100, Train Loss: 0.2889, Test Loss: 0.3573, Train Accuracy: 0.8971, Test Accuracy: 0.8726
Epoch 27/100, Train Loss: 0.2861, Test Loss: 0.3590, Train Accuracy: 0.8988, Test Accuracy: 0.8712
Epoch 28/100, Train Loss: 0.2851, Test Loss: 0.3577, Train Accuracy: 0.8992, Test Accuracy: 0.8722
Epoch 29/100, Train Loss: 0.2820, Test Loss: 0.3589, Train Accuracy: 0.8993, Test Accuracy: 0.8733
Epoch 30/100, Train Loss: 0.2735, Test Loss: 0.3489, Train Accuracy: 0.9041, Test Accuracy: 0.8758
Epoch 31/100, Train Loss: 0.2754, Test Loss: 0.3518, Train Accuracy: 0.9012, Test Accuracy: 0.8751
Epoch 32/100, Train Loss: 0.2702, Test Loss: 0.3473, Train Accuracy: 0.9038, Test Accuracy: 0.8753
Epoch 33/100, Train Loss: 0.2867, Test Loss: 0.3679, Train Accuracy: 0.8954, Test Accuracy: 0.8649
Epoch 34/100, Train Loss: 0.2724, Test Loss: 0.3522, Train Accuracy: 0.9034, Test Accuracy: 0.8750
Epoch 35/100, Train Loss: 0.2598, Test Loss: 0.3422, Train Accuracy: 0.9082, Test Accuracy: 0.8781
Epoch 36/100, Train Loss: 0.2674, Test Loss: 0.3526, Train Accuracy: 0.9052, Test Accuracy: 0.8763
Epoch 37/100, Train Loss: 0.2634, Test Loss: 0.3491, Train Accuracy: 0.9045, Test Accuracy: 0.8751
Epoch 38/100, Train Loss: 0.2652, Test Loss: 0.3509, Train Accuracy: 0.9064, Test Accuracy: 0.8750
Epoch 39/100, Train Loss: 0.2529, Test Loss: 0.3401, Train Accuracy: 0.9104, Test Accuracy: 0.8783
Epoch 40/100, Train Loss: 0.2554, Test Loss: 0.3484, Train Accuracy: 0.9080, Test Accuracy: 0.8708
Epoch 41/100, Train Loss: 0.2457, Test Loss: 0.3371, Train Accuracy: 0.9125, Test Accuracy: 0.8801
Epoch 42/100, Train Loss: 0.2529, Test Loss: 0.3466, Train Accuracy: 0.9088, Test Accuracy: 0.8770
Epoch 43/100, Train Loss: 0.2418, Test Loss: 0.3358, Train Accuracy: 0.9140, Test Accuracy: 0.8808
Epoch 44/100, Train Loss: 0.2485, Test Loss: 0.3429, Train Accuracy: 0.9103, Test Accuracy: 0.8754
Epoch 45/100, Train Loss: 0.2410, Test Loss: 0.3388, Train Accuracy: 0.9144, Test Accuracy: 0.8794
Epoch 46/100, Train Loss: 0.2435, Test Loss: 0.3445, Train Accuracy: 0.9141, Test Accuracy: 0.8769
Epoch 47/100, Train Loss: 0.2495, Test Loss: 0.3519, Train Accuracy: 0.9103, Test Accuracy: 0.8732
Epoch 48/100, Train Loss: 0.2457, Test Loss: 0.3496, Train Accuracy: 0.9123, Test Accuracy: 0.8776
Epoch 49/100, Train Loss: 0.2321, Test Loss: 0.3371, Train Accuracy: 0.9184, Test Accuracy: 0.8801
Epoch 50/100, Train Loss: 0.2410, Test Loss: 0.3449, Train Accuracy: 0.9138, Test Accuracy: 0.8768
Epoch 51/100, Train Loss: 0.2289, Test Loss: 0.3345, Train Accuracy: 0.9194, Test Accuracy: 0.8818
Epoch 52/100, Train Loss: 0.2275, Test Loss: 0.3350, Train Accuracy: 0.9191, Test Accuracy: 0.8819
Epoch 53/100, Train Loss: 0.2338, Test Loss: 0.3452, Train Accuracy: 0.9163, Test Accuracy: 0.8774
Epoch 54/100, Train Loss: 0.2285, Test Loss: 0.3366, Train Accuracy: 0.9191, Test Accuracy: 0.8816
Epoch 55/100, Train Loss: 0.2195, Test Loss: 0.3351, Train Accuracy: 0.9234, Test Accuracy: 0.8798
Epoch 56/100, Train Loss: 0.2357, Test Loss: 0.3500, Train Accuracy: 0.9172, Test Accuracy: 0.8760
Epoch 57/100, Train Loss: 0.2347, Test Loss: 0.3493, Train Accuracy: 0.9145, Test Accuracy: 0.8752
Epoch 58/100, Train Loss: 0.2171, Test Loss: 0.3368, Train Accuracy: 0.9235, Test Accuracy: 0.8797
Epoch 59/100, Train Loss: 0.2105, Test Loss: 0.3298, Train Accuracy: 0.9273, Test Accuracy: 0.8826
Epoch 60/100, Train Loss: 0.2095, Test Loss: 0.3315, Train Accuracy: 0.9271, Test Accuracy: 0.8847
Epoch 61/100, Train Loss: 0.2114, Test Loss: 0.3329, Train Accuracy: 0.9251, Test Accuracy: 0.8839
Epoch 62/100, Train Loss: 0.2041, Test Loss: 0.3277, Train Accuracy: 0.9294, Test Accuracy: 0.8849
Epoch 63/100, Train Loss: 0.2074, Test Loss: 0.3311, Train Accuracy: 0.9283, Test Accuracy: 0.8859
Epoch 64/100, Train Loss: 0.2078, Test Loss: 0.3341, Train Accuracy: 0.9272, Test Accuracy: 0.8836
Epoch 65/100, Train Loss: 0.2086, Test Loss: 0.3355, Train Accuracy: 0.9269, Test Accuracy: 0.8852
Epoch 66/100, Train Loss: 0.2012, Test Loss: 0.3296, Train Accuracy: 0.9303, Test Accuracy: 0.8844
Epoch 67/100, Train Loss: 0.2035, Test Loss: 0.3339, Train Accuracy: 0.9275, Test Accuracy: 0.8866
Epoch 68/100, Train Loss: 0.2154, Test Loss: 0.3486, Train Accuracy: 0.9209, Test Accuracy: 0.8735
Epoch 69/100, Train Loss: 0.2005, Test Loss: 0.3353, Train Accuracy: 0.9304, Test Accuracy: 0.8810
Epoch 70/100, Train Loss: 0.1963, Test Loss: 0.3304, Train Accuracy: 0.9320, Test Accuracy: 0.8841
Epoch 71/100, Train Loss: 0.1934, Test Loss: 0.3294, Train Accuracy: 0.9332, Test Accuracy: 0.8867
Epoch 72/100, Train Loss: 0.1989, Test Loss: 0.3376, Train Accuracy: 0.9315, Test Accuracy: 0.8820
Epoch 73/100, Train Loss: 0.1913, Test Loss: 0.3305, Train Accuracy: 0.9339, Test Accuracy: 0.8849