CNN:

The results:

Successfully downloaded train-images-idx3-ubyte.gz 9912422 bytes.

Extracting /tmp/data/train-images-idx3-ubyte.gz

Successfully downloaded train-labels-idx1-ubyte.gz 28881 bytes.

Extracting /tmp/data/train-labels-idx1-ubyte.gz

Successfully downloaded t10k-images-idx3-ubyte.gz 1648877 bytes.

Extracting /tmp/data/t10k-images-idx3-ubyte.gz

Successfully downloaded t10k-labels-idx1-ubyte.gz 4542 bytes.

Extracting /tmp/data/t10k-labels-idx1-ubyte.gz

Iter 1280, Minibatch Loss= 22252.988281, Training Accuracy= 0.37500

Iter 2560, Minibatch Loss= 12356.757812, Training Accuracy= 0.52344

Iter 3840, Minibatch Loss= 7049.469727, Training Accuracy= 0.64844

Iter 5120, Minibatch Loss= 7624.795898, Training Accuracy= 0.68750

Iter 6400, Minibatch Loss= 2607.952637, Training Accuracy= 0.85938

Iter 7680, Minibatch Loss= 4446.240723, Training Accuracy= 0.77344

Iter 8960, Minibatch Loss= 2873.099365, Training Accuracy= 0.88281

Iter 10240, Minibatch Loss= 3842.311279, Training Accuracy= 0.82812

Iter 11520, Minibatch Loss= 2554.541504, Training Accuracy= 0.84375

Iter 12800, Minibatch Loss= 1821.873291, Training Accuracy= 0.88281

Iter 14080, Minibatch Loss= 1712.868286, Training Accuracy= 0.88281

Iter 15360, Minibatch Loss= 2589.089600, Training Accuracy= 0.85938

Iter 16640, Minibatch Loss= 2639.786133, Training Accuracy= 0.88281

Iter 17920, Minibatch Loss= 2317.746582, Training Accuracy= 0.87500

Iter 19200, Minibatch Loss= 1796.993408, Training Accuracy= 0.88281

Iter 20480, Minibatch Loss= 1203.009766, Training Accuracy= 0.91406

Iter 21760, Minibatch Loss= 2354.796875, Training Accuracy= 0.88281

Iter 23040, Minibatch Loss= 2053.188965, Training Accuracy= 0.86719

Iter 24320, Minibatch Loss= 2536.564941, Training Accuracy= 0.92969

Iter 25600, Minibatch Loss= 1387.163574, Training Accuracy= 0.92969

Iter 26880, Minibatch Loss= 1070.090210, Training Accuracy= 0.92969

Iter 28160, Minibatch Loss= 2336.479492, Training Accuracy= 0.89844

Iter 29440, Minibatch Loss= 1431.157593, Training Accuracy= 0.91406

Iter 30720, Minibatch Loss= 2100.429688, Training Accuracy= 0.86719

Iter 32000, Minibatch Loss= 701.881104, Training Accuracy= 0.91406

Iter 33280, Minibatch Loss= 855.164795, Training Accuracy= 0.92969

Iter 34560, Minibatch Loss= 761.003723, Training Accuracy= 0.92188

Iter 35840, Minibatch Loss= 713.762695, Training Accuracy= 0.96094

Iter 37120, Minibatch Loss= 2041.725586, Training Accuracy= 0.92188

Iter 38400, Minibatch Loss= 1085.686401, Training Accuracy= 0.92188

Iter 39680, Minibatch Loss= 920.857422, Training Accuracy= 0.93750

Iter 40960, Minibatch Loss= 1123.993774, Training Accuracy= 0.93750

Iter 42240, Minibatch Loss= 1005.861694, Training Accuracy= 0.92188

Iter 43520, Minibatch Loss= 821.012695, Training Accuracy= 0.92969

Iter 44800, Minibatch Loss= 845.093689, Training Accuracy= 0.93750

Iter 46080, Minibatch Loss= 1518.144775, Training Accuracy= 0.96094

Iter 47360, Minibatch Loss= 861.981689, Training Accuracy= 0.92969

Iter 48640, Minibatch Loss= 624.733032, Training Accuracy= 0.95312

Iter 49920, Minibatch Loss= 630.572021, Training Accuracy= 0.95312

Iter 51200, Minibatch Loss= 457.908264, Training Accuracy= 0.96875

Iter 52480, Minibatch Loss= 617.667358, Training Accuracy= 0.94531

Iter 53760, Minibatch Loss= 691.963379, Training Accuracy= 0.93750

Iter 55040, Minibatch Loss= 737.744751, Training Accuracy= 0.90625

Iter 56320, Minibatch Loss= 1332.155640, Training Accuracy= 0.92188

Iter 57600, Minibatch Loss= 465.302063, Training Accuracy= 0.95312

Iter 58880, Minibatch Loss= 745.333435, Training Accuracy= 0.96094

Iter 60160, Minibatch Loss= 521.447144, Training Accuracy= 0.93750

Iter 61440, Minibatch Loss= 644.537048, Training Accuracy= 0.93750

Iter 62720, Minibatch Loss= 939.461365, Training Accuracy= 0.96094

Iter 64000, Minibatch Loss= 819.318359, Training Accuracy= 0.92188

Iter 65280, Minibatch Loss= 699.707275, Training Accuracy= 0.92969

Iter 66560, Minibatch Loss= 527.455627, Training Accuracy= 0.93750

Iter 67840, Minibatch Loss= 338.645264, Training Accuracy= 0.96094

Iter 69120, Minibatch Loss= 478.273926, Training Accuracy= 0.96875

Iter 70400, Minibatch Loss= 743.132446, Training Accuracy= 0.92969

Iter 71680, Minibatch Loss= 823.020203, Training Accuracy= 0.96094

Iter 72960, Minibatch Loss= 622.135498, Training Accuracy= 0.95312

Iter 74240, Minibatch Loss= 546.866821, Training Accuracy= 0.96094

Iter 75520, Minibatch Loss= 541.403809, Training Accuracy= 0.94531

Iter 76800, Minibatch Loss= 515.542786, Training Accuracy= 0.92969

Iter 78080, Minibatch Loss= 746.101685, Training Accuracy= 0.95312

Iter 79360, Minibatch Loss= 1077.119751, Training Accuracy= 0.92188

Iter 80640, Minibatch Loss= 378.101501, Training Accuracy= 0.96875

Iter 81920, Minibatch Loss= 202.328201, Training Accuracy= 0.95312

Iter 83200, Minibatch Loss= 556.892639, Training Accuracy= 0.93750

Iter 84480, Minibatch Loss= 568.658875, Training Accuracy= 0.93750

Iter 85760, Minibatch Loss= 125.421906, Training Accuracy= 0.96875

Iter 87040, Minibatch Loss= 300.162048, Training Accuracy= 0.96094

Iter 88320, Minibatch Loss= 455.535828, Training Accuracy= 0.94531

Iter 89600, Minibatch Loss= 91.265022, Training Accuracy= 0.98438

Iter 90880, Minibatch Loss= 260.623260, Training Accuracy= 0.96094

Iter 92160, Minibatch Loss= 477.284363, Training Accuracy= 0.94531

Iter 93440, Minibatch Loss= 364.579529, Training Accuracy= 0.93750

Iter 94720, Minibatch Loss= 612.512573, Training Accuracy= 0.95312

Iter 96000, Minibatch Loss= 416.402771, Training Accuracy= 0.97656

Iter 97280, Minibatch Loss= 531.381897, Training Accuracy= 0.95312

Iter 98560, Minibatch Loss= 888.428101, Training Accuracy= 0.89844

Iter 99840, Minibatch Loss= 228.023010, Training Accuracy= 0.97656

Iter 101120, Minibatch Loss= 82.785789, Training Accuracy= 0.98438

Iter 102400, Minibatch Loss= 164.957596, Training Accuracy= 0.96875

Iter 103680, Minibatch Loss= 42.026772, Training Accuracy= 0.97656

Iter 104960, Minibatch Loss= 196.138641, Training Accuracy= 0.96875

Iter 106240, Minibatch Loss= 153.066315, Training Accuracy= 0.95312

Iter 107520, Minibatch Loss= 376.371887, Training Accuracy= 0.96094

Iter 108800, Minibatch Loss= 112.100601, Training Accuracy= 0.97656

Iter 110080, Minibatch Loss= 60.601768, Training Accuracy= 0.98438

Iter 111360, Minibatch Loss= 332.859863, Training Accuracy= 0.96875

Iter 112640, Minibatch Loss= 1.551666, Training Accuracy= 0.99219

Iter 113920, Minibatch Loss= 274.651367, Training Accuracy= 0.96875

Iter 115200, Minibatch Loss= 528.886963, Training Accuracy= 0.94531

Iter 116480, Minibatch Loss= 143.655685, Training Accuracy= 0.96094

Iter 117760, Minibatch Loss= 424.321716, Training Accuracy= 0.96094

Iter 119040, Minibatch Loss= 742.008911, Training Accuracy= 0.94531

Iter 120320, Minibatch Loss= 50.217896, Training Accuracy= 0.98438

Iter 121600, Minibatch Loss= 420.194244, Training Accuracy= 0.96094

Iter 122880, Minibatch Loss= 131.851990, Training Accuracy= 0.96094

Iter 124160, Minibatch Loss= 445.174255, Training Accuracy= 0.92969

Iter 125440, Minibatch Loss= 434.377869, Training Accuracy= 0.95312

Iter 126720, Minibatch Loss= 275.675354, Training Accuracy= 0.96094

Iter 128000, Minibatch Loss= 112.608246, Training Accuracy= 0.97656

Iter 129280, Minibatch Loss= 559.408569, Training Accuracy= 0.94531

Iter 130560, Minibatch Loss= 518.297913, Training Accuracy= 0.94531

Iter 131840, Minibatch Loss= 107.726883, Training Accuracy= 0.95312

Iter 133120, Minibatch Loss= 55.840973, Training Accuracy= 0.96875

Iter 134400, Minibatch Loss= 229.044098, Training Accuracy= 0.96094

Iter 135680, Minibatch Loss= 51.751190, Training Accuracy= 0.97656

Iter 136960, Minibatch Loss= 90.301483, Training Accuracy= 0.97656

Iter 138240, Minibatch Loss= 114.256775, Training Accuracy= 0.96875

Iter 139520, Minibatch Loss= 463.942230, Training Accuracy= 0.96094

Iter 140800, Minibatch Loss= 94.197464, Training Accuracy= 0.97656

Iter 142080, Minibatch Loss= 353.269196, Training Accuracy= 0.92969

Iter 143360, Minibatch Loss= 50.939095, Training Accuracy= 0.97656

Iter 144640, Minibatch Loss= 180.888123, Training Accuracy= 0.97656

Iter 145920, Minibatch Loss= 45.347816, Training Accuracy= 0.98438

Iter 147200, Minibatch Loss= 256.010803, Training Accuracy= 0.95312

Iter 148480, Minibatch Loss= 582.890991, Training Accuracy= 0.96875

Iter 149760, Minibatch Loss= 106.740219, Training Accuracy= 0.96875

Iter 151040, Minibatch Loss= 243.813965, Training Accuracy= 0.97656

Iter 152320, Minibatch Loss= 142.477600, Training Accuracy= 0.96875

Iter 153600, Minibatch Loss= 91.971237, Training Accuracy= 0.95312

Iter 154880, Minibatch Loss= 326.948059, Training Accuracy= 0.94531

Iter 156160, Minibatch Loss= 261.856567, Training Accuracy= 0.96875

Iter 157440, Minibatch Loss= 416.241821, Training Accuracy= 0.95312

Iter 158720, Minibatch Loss= 321.358887, Training Accuracy= 0.94531

Iter 160000, Minibatch Loss= 564.245911, Training Accuracy= 0.96875

Iter 161280, Minibatch Loss= 250.362457, Training Accuracy= 0.98438

Iter 162560, Minibatch Loss= 133.027054, Training Accuracy= 0.96094

Iter 163840, Minibatch Loss= 140.959473, Training Accuracy= 0.95312

Iter 165120, Minibatch Loss= 234.632950, Training Accuracy= 0.94531

Iter 166400, Minibatch Loss= 370.097870, Training Accuracy= 0.97656

Iter 167680, Minibatch Loss= 178.970505, Training Accuracy= 0.97656

Iter 168960, Minibatch Loss= 128.239563, Training Accuracy= 0.99219

Iter 170240, Minibatch Loss= 196.509155, Training Accuracy= 0.97656

Iter 171520, Minibatch Loss= 335.883789, Training Accuracy= 0.92969

Iter 172800, Minibatch Loss= 434.079407, Training Accuracy= 0.95312

Iter 174080, Minibatch Loss= 352.662933, Training Accuracy= 0.93750

Iter 175360, Minibatch Loss= 451.834167, Training Accuracy= 0.94531

Iter 176640, Minibatch Loss= 35.067009, Training Accuracy= 0.97656

Iter 177920, Minibatch Loss= 296.780975, Training Accuracy= 0.96094

Iter 179200, Minibatch Loss= 134.307587, Training Accuracy= 0.98438

Iter 180480, Minibatch Loss= 169.048462, Training Accuracy= 0.95312

Iter 181760, Minibatch Loss= 422.241882, Training Accuracy= 0.93750

Iter 183040, Minibatch Loss= 165.946884, Training Accuracy= 0.95312

Iter 184320, Minibatch Loss= 39.617699, Training Accuracy= 0.97656

Iter 185600, Minibatch Loss= 216.395630, Training Accuracy= 0.97656

Iter 186880, Minibatch Loss= 63.688938, Training Accuracy= 0.99219

Iter 188160, Minibatch Loss= 116.147430, Training Accuracy= 0.97656

Iter 189440, Minibatch Loss= 95.131470, Training Accuracy= 0.96875

Iter 190720, Minibatch Loss= 116.976204, Training Accuracy= 0.98438

Iter 192000, Minibatch Loss= 234.644745, Training Accuracy= 0.93750

Iter 193280, Minibatch Loss= 184.471344, Training Accuracy= 0.98438

Iter 194560, Minibatch Loss= 183.686676, Training Accuracy= 0.98438

Iter 195840, Minibatch Loss= 309.313354, Training Accuracy= 0.96094

Iter 197120, Minibatch Loss= 80.097534, Training Accuracy= 0.97656

Iter 198400, Minibatch Loss= 129.936951, Training Accuracy= 0.96875

Iter 199680, Minibatch Loss= 23.425602, Training Accuracy= 0.98438

Optimization Finished!

Testing Accuracy: 0.976563

Features: