

文件- garbage_CNN

```
D:\PycharmProjects\garbage_classify\.venv\Scripts\  
python.exe D:\course\s3\ml\garbage_classification\  
garbage_CNN.py  
gpu available  
begin train  
[1,    50] loss: 1.794  test_accuracy:23.416  
train_accuracy:23.521  
[1,   100] loss: 1.773  test_accuracy:23.416  
train_accuracy:23.521  
[1,   150] loss: 1.750  test_accuracy:23.416  
train_accuracy:23.521  
[1,   200] loss: 1.756  test_accuracy:23.416  
train_accuracy:23.521  
[1,   250] loss: 1.725  test_accuracy:23.416  
train_accuracy:23.521  
[1,   300] loss: 1.704  test_accuracy:26.171  
train_accuracy:26.664  
[1,   350] loss: 1.729  test_accuracy:30.303  
train_accuracy:29.760  
[2,    50] loss: 1.651  test_accuracy:24.242  
train_accuracy:23.799  
[2,   100] loss: 1.679  test_accuracy:28.375  
train_accuracy:26.987  
[2,   150] loss: 1.632  test_accuracy:30.028  
train_accuracy:29.067  
[2,   200] loss: 1.630  test_accuracy:23.140  
train_accuracy:23.660  
[2,   250] loss: 1.621  test_accuracy:34.986  
train_accuracy:32.902  
[2,   300] loss: 1.551  test_accuracy:38.567  
train_accuracy:38.124  
[2,   350] loss: 1.597  test_accuracy:34.435  
train_accuracy:36.183  
[3,    50] loss: 1.514  test_accuracy:36.639  
train_accuracy:39.649  
[3,   100] loss: 1.472  test_accuracy:37.466  
train_accuracy:39.695  
[3,   150] loss: 1.518  test_accuracy:42.975  
train_accuracy:43.623  
[3,   200] loss: 1.503  test_accuracy:41.322  
train_accuracy:42.052
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```
[3, 250] loss: 1.483 test_accuracy:41.047
train_accuracy:42.745
[3, 300] loss: 1.417 test_accuracy:42.424
train_accuracy:45.240
[3, 350] loss: 1.482 test_accuracy:37.190
train_accuracy:38.909
[4, 50] loss: 1.402 test_accuracy:42.424
train_accuracy:46.026
[4, 100] loss: 1.474 test_accuracy:42.424
train_accuracy:45.610
[4, 150] loss: 1.409 test_accuracy:45.179
train_accuracy:44.362
[4, 200] loss: 1.450 test_accuracy:45.179
train_accuracy:48.152
[4, 250] loss: 1.293 test_accuracy:45.179
train_accuracy:48.290
[4, 300] loss: 1.333 test_accuracy:46.281
train_accuracy:50.092
[4, 350] loss: 1.386 test_accuracy:47.107
train_accuracy:48.290
[5, 50] loss: 1.323 test_accuracy:43.251
train_accuracy:46.026
[5, 100] loss: 1.316 test_accuracy:45.179
train_accuracy:47.366
[5, 150] loss: 1.304 test_accuracy:48.485
train_accuracy:51.017
[5, 200] loss: 1.288 test_accuracy:46.832
train_accuracy:51.248
[5, 250] loss: 1.298 test_accuracy:48.209
train_accuracy:50.739
[5, 300] loss: 1.292 test_accuracy:49.587
train_accuracy:53.281
[5, 350] loss: 1.335 test_accuracy:49.587
train_accuracy:53.789
[6, 50] loss: 1.108 test_accuracy:52.342
train_accuracy:54.713
[6, 100] loss: 1.277 test_accuracy:48.209
train_accuracy:52.588
[6, 150] loss: 1.212 test_accuracy:52.066
train_accuracy:57.579
[6, 200] loss: 1.291 test_accuracy:50.413
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```
train_accuracy:51.848  
[6, 250] loss: 1.291 test_accuracy:46.006  
train_accuracy:50.508  
[6, 300] loss: 1.201 test_accuracy:49.862  
train_accuracy:55.360  
[6, 350] loss: 1.280 test_accuracy:49.862  
train_accuracy:55.083  
[7, 50] loss: 1.138 test_accuracy:46.556  
train_accuracy:51.710  
[7, 100] loss: 1.186 test_accuracy:54.821  
train_accuracy:59.889  
[7, 150] loss: 1.133 test_accuracy:49.587  
train_accuracy:51.802  
[7, 200] loss: 1.071 test_accuracy:53.719  
train_accuracy:57.902  
[7, 250] loss: 1.361 test_accuracy:51.791  
train_accuracy:53.512  
[7, 300] loss: 1.079 test_accuracy:54.270  
train_accuracy:58.503  
[7, 350] loss: 1.194 test_accuracy:53.994  
train_accuracy:59.104  
[8, 50] loss: 1.122 test_accuracy:54.270  
train_accuracy:58.226  
[8, 100] loss: 1.086 test_accuracy:52.066  
train_accuracy:57.116  
[8, 150] loss: 1.172 test_accuracy:52.342  
train_accuracy:60.074  
[8, 200] loss: 1.115 test_accuracy:47.107  
train_accuracy:55.314  
[8, 250] loss: 1.174 test_accuracy:51.240  
train_accuracy:57.532  
[8, 300] loss: 1.093 test_accuracy:50.413  
train_accuracy:55.776  
[8, 350] loss: 1.142 test_accuracy:56.198  
train_accuracy:59.797  
[9, 50] loss: 1.075 test_accuracy:52.893  
train_accuracy:58.410  
[9, 100] loss: 1.049 test_accuracy:54.545  
train_accuracy:60.074  
[9, 150] loss: 1.060 test_accuracy:54.821  
train_accuracy:59.982
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```
[9, 200] loss: 0.991 test_accuracy:53.994
train_accuracy:60.813
[9, 250] loss: 1.116 test_accuracy:59.780
train_accuracy:63.309
[9, 300] loss: 1.118 test_accuracy:58.953
train_accuracy:65.527
[9, 350] loss: 0.992 test_accuracy:55.096
train_accuracy:61.599
[10, 50] loss: 0.923 test_accuracy:54.545
train_accuracy:58.549
[10, 100] loss: 1.050 test_accuracy:57.576
train_accuracy:65.250
[10, 150] loss: 1.052 test_accuracy:50.413
train_accuracy:61.137
[10, 200] loss: 0.944 test_accuracy:55.372
train_accuracy:64.002
[10, 250] loss: 1.013 test_accuracy:57.576
train_accuracy:65.758
[10, 300] loss: 1.001 test_accuracy:60.055
train_accuracy:66.405
[10, 350] loss: 0.969 test_accuracy:57.576
train_accuracy:67.052
[11, 50] loss: 0.911 test_accuracy:58.953
train_accuracy:67.514
[11, 100] loss: 0.931 test_accuracy:60.882
train_accuracy:67.329
[11, 150] loss: 0.883 test_accuracy:56.474
train_accuracy:66.636
[11, 200] loss: 0.963 test_accuracy:52.617
train_accuracy:62.708
[11, 250] loss: 0.963 test_accuracy:58.402
train_accuracy:68.115
[11, 300] loss: 1.036 test_accuracy:54.821
train_accuracy:65.250
[11, 350] loss: 0.921 test_accuracy:62.534
train_accuracy:68.993
[12, 50] loss: 0.825 test_accuracy:58.402
train_accuracy:69.177
[12, 100] loss: 0.827 test_accuracy:58.402
train_accuracy:65.296
[12, 150] loss: 0.972 test_accuracy:57.576
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```
train_accuracy:69.131  
[12, 200] loss: 0.990 test_accuracy:60.882  
train_accuracy:68.484  
[12, 250] loss: 0.880 test_accuracy:61.983  
train_accuracy:69.778  
[12, 300] loss: 0.789 test_accuracy:53.444  
train_accuracy:60.536  
[12, 350] loss: 0.932 test_accuracy:61.708  
train_accuracy:72.181  
[13, 50] loss: 0.820 test_accuracy:60.331  
train_accuracy:72.043  
[13, 100] loss: 0.782 test_accuracy:58.402  
train_accuracy:69.963  
[13, 150] loss: 0.798 test_accuracy:58.678  
train_accuracy:73.152  
[13, 200] loss: 0.805 test_accuracy:61.433  
train_accuracy:72.412  
[13, 250] loss: 0.727 test_accuracy:60.882  
train_accuracy:73.937  
[13, 300] loss: 0.829 test_accuracy:56.749  
train_accuracy:73.290  
[13, 350] loss: 0.871 test_accuracy:58.402  
train_accuracy:72.921  
[14, 50] loss: 0.683 test_accuracy:59.780  
train_accuracy:71.534  
[14, 100] loss: 0.784 test_accuracy:55.647  
train_accuracy:70.795  
[14, 150] loss: 0.786 test_accuracy:58.402  
train_accuracy:71.904  
[14, 200] loss: 0.838 test_accuracy:60.882  
train_accuracy:71.811  
[14, 250] loss: 0.768 test_accuracy:63.085  
train_accuracy:76.017  
[14, 300] loss: 0.755 test_accuracy:56.749  
train_accuracy:74.168  
[14, 350] loss: 0.813 test_accuracy:61.983  
train_accuracy:74.538  
[15, 50] loss: 0.653 test_accuracy:59.780  
train_accuracy:75.647  
[15, 100] loss: 0.724 test_accuracy:59.780  
train_accuracy:75.970
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```
[15, 150] loss: 0.697 test_accuracy:61.983
train_accuracy:78.835
[15, 200] loss: 0.825 test_accuracy:60.882
train_accuracy:78.050
[15, 250] loss: 0.816 test_accuracy:52.893
train_accuracy:71.303
[15, 300] loss: 0.694 test_accuracy:59.780
train_accuracy:77.172
[15, 350] loss: 0.741 test_accuracy:64.187
train_accuracy:79.852
[16, 50] loss: 0.526 test_accuracy:62.259
train_accuracy:79.529
[16, 100] loss: 0.719 test_accuracy:61.433
train_accuracy:78.466
[16, 150] loss: 0.751 test_accuracy:53.994
train_accuracy:70.702
[16, 200] loss: 0.717 test_accuracy:63.361
train_accuracy:80.268
[16, 250] loss: 0.731 test_accuracy:58.402
train_accuracy:78.558
[16, 300] loss: 0.698 test_accuracy:64.738
train_accuracy:78.789
[16, 350] loss: 0.638 test_accuracy:63.085
train_accuracy:80.730
[17, 50] loss: 0.599 test_accuracy:62.259
train_accuracy:83.688
[17, 100] loss: 0.556 test_accuracy:66.667
train_accuracy:80.961
[17, 150] loss: 0.576 test_accuracy:62.810
train_accuracy:83.549
[17, 200] loss: 0.607 test_accuracy:61.157
train_accuracy:80.037
[17, 250] loss: 0.684 test_accuracy:56.749
train_accuracy:73.244
[17, 300] loss: 0.599 test_accuracy:61.708
train_accuracy:79.991
[17, 350] loss: 0.616 test_accuracy:60.055
train_accuracy:75.739
[18, 50] loss: 0.478 test_accuracy:63.912
train_accuracy:83.226
[18, 100] loss: 0.499 test_accuracy:56.198
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```
train_accuracy:80.823  
[18, 150] loss: 0.545 test_accuracy:62.259  
train_accuracy:81.054  
[18, 200] loss: 0.557 test_accuracy:63.361  
train_accuracy:83.272  
[18, 250] loss: 0.589 test_accuracy:65.565  
train_accuracy:83.734  
[18, 300] loss: 0.606 test_accuracy:60.606  
train_accuracy:82.394  
[18, 350] loss: 0.621 test_accuracy:57.025  
train_accuracy:79.436  
[19, 50] loss: 0.518 test_accuracy:59.229  
train_accuracy:80.776  
[19, 100] loss: 0.480 test_accuracy:57.576  
train_accuracy:80.869  
[19, 150] loss: 0.427 test_accuracy:61.983  
train_accuracy:83.826  
[19, 200] loss: 0.418 test_accuracy:63.085  
train_accuracy:87.569  
[19, 250] loss: 0.618 test_accuracy:65.289  
train_accuracy:80.129  
[19, 300] loss: 0.462 test_accuracy:65.840  
train_accuracy:85.028  
[19, 350] loss: 0.517 test_accuracy:63.912  
train_accuracy:86.969  
[20, 50] loss: 0.323 test_accuracy:63.361  
train_accuracy:86.506  
[20, 100] loss: 0.331 test_accuracy:61.157  
train_accuracy:86.553  
[20, 150] loss: 0.486 test_accuracy:61.708  
train_accuracy:86.922  
[20, 200] loss: 0.483 test_accuracy:64.187  
train_accuracy:87.015  
[20, 250] loss: 0.443 test_accuracy:62.534  
train_accuracy:85.998  
[20, 300] loss: 0.549 test_accuracy:60.606  
train_accuracy:84.612  
[20, 350] loss: 0.541 test_accuracy:64.187  
train_accuracy:83.272  
[21, 50] loss: 0.417 test_accuracy:60.882  
train_accuracy:87.477
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```
[21,    100] loss: 0.408  test_accuracy:59.229
train_accuracy:86.553
[21,    150] loss: 0.407  test_accuracy:65.840
train_accuracy:87.893
[21,    200] loss: 0.364  test_accuracy:66.942
train_accuracy:89.695
[21,    250] loss: 0.387  test_accuracy:63.085
train_accuracy:86.784
[21,    300] loss: 0.429  test_accuracy:59.780
train_accuracy:90.758
[21,    350] loss: 0.374  test_accuracy:60.331
train_accuracy:89.787
[22,    50] loss: 0.366  test_accuracy:61.157
train_accuracy:85.952
[22,   100] loss: 0.404  test_accuracy:61.433
train_accuracy:87.569
[22,   150] loss: 0.393  test_accuracy:62.534
train_accuracy:91.359
[22,   200] loss: 0.380  test_accuracy:61.157
train_accuracy:90.527
[22,   250] loss: 0.419  test_accuracy:58.127
train_accuracy:84.750
[22,   300] loss: 0.446  test_accuracy:65.014
train_accuracy:89.834
[22,   350] loss: 0.330  test_accuracy:62.534
train_accuracy:90.943
[23,    50] loss: 0.378  test_accuracy:60.882
train_accuracy:86.414
[23,   100] loss: 0.318  test_accuracy:63.085
train_accuracy:92.560
[23,   150] loss: 0.367  test_accuracy:64.738
train_accuracy:91.174
[23,   200] loss: 0.412  test_accuracy:60.606
train_accuracy:87.616
[23,   250] loss: 0.361  test_accuracy:64.187
train_accuracy:91.081
[23,   300] loss: 0.363  test_accuracy:58.678
train_accuracy:87.847
[23,   350] loss: 0.319  test_accuracy:60.055
train_accuracy:91.682
[24,    50] loss: 0.336  test_accuracy:64.187
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```
train_accuracy:90.712  
[24, 100] loss: 0.268 test_accuracy:64.463  
train_accuracy:87.708  
[24, 150] loss: 0.349 test_accuracy:57.851  
train_accuracy:88.771  
[24, 200] loss: 0.372 test_accuracy:61.157  
train_accuracy:87.708  
[24, 250] loss: 0.406 test_accuracy:60.882  
train_accuracy:88.031  
[24, 300] loss: 0.302 test_accuracy:62.810  
train_accuracy:93.068  
[24, 350] loss: 0.355 test_accuracy:60.606  
train_accuracy:92.098  
[25, 50] loss: 0.192 test_accuracy:61.433  
train_accuracy:93.946  
[25, 100] loss: 0.183 test_accuracy:61.157  
train_accuracy:93.531  
[25, 150] loss: 0.250 test_accuracy:61.983  
train_accuracy:87.754  
[25, 200] loss: 0.324 test_accuracy:61.708  
train_accuracy:94.131  
[25, 250] loss: 0.230 test_accuracy:58.402  
train_accuracy:89.140  
[25, 300] loss: 0.326 test_accuracy:57.851  
train_accuracy:88.909  
[25, 350] loss: 0.365 test_accuracy:59.229  
train_accuracy:92.606  
[26, 50] loss: 0.167 test_accuracy:62.259  
train_accuracy:94.362  
[26, 100] loss: 0.177 test_accuracy:63.912  
train_accuracy:95.194  
[26, 150] loss: 0.182 test_accuracy:64.738  
train_accuracy:94.593  
[26, 200] loss: 0.253 test_accuracy:59.229  
train_accuracy:88.909  
[26, 250] loss: 0.315 test_accuracy:63.912  
train_accuracy:92.976  
[26, 300] loss: 0.145 test_accuracy:59.780  
train_accuracy:92.052  
[26, 350] loss: 0.289 test_accuracy:63.636  
train_accuracy:94.547
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```
[27,    50] loss: 0.206  test_accuracy:62.259
train_accuracy:95.887
[27,   100] loss: 0.187  test_accuracy:59.229
train_accuracy:90.758
[27,   150] loss: 0.183  test_accuracy:61.983
train_accuracy:94.686
[27,   200] loss: 0.178  test_accuracy:64.463
train_accuracy:93.715
[27,   250] loss: 0.219  test_accuracy:64.187
train_accuracy:94.640
[27,   300] loss: 0.252  test_accuracy:61.433
train_accuracy:93.299
[27,   350] loss: 0.284  test_accuracy:59.780
train_accuracy:94.409
[28,    50] loss: 0.196  test_accuracy:61.708
train_accuracy:94.177
[28,   100] loss: 0.098  test_accuracy:66.942
train_accuracy:96.026
[28,   150] loss: 0.131  test_accuracy:65.014
train_accuracy:96.719
[28,   200] loss: 0.170  test_accuracy:62.534
train_accuracy:95.287
[28,   250] loss: 0.175  test_accuracy:62.534
train_accuracy:95.009
[28,   300] loss: 0.180  test_accuracy:65.014
train_accuracy:95.240
[28,   350] loss: 0.174  test_accuracy:61.157
train_accuracy:96.303
[29,    50] loss: 0.087  test_accuracy:61.983
train_accuracy:96.627
[29,   100] loss: 0.143  test_accuracy:60.331
train_accuracy:95.610
[29,   150] loss: 0.201  test_accuracy:60.331
train_accuracy:95.009
[29,   200] loss: 0.210  test_accuracy:63.912
train_accuracy:94.778
[29,   250] loss: 0.266  test_accuracy:63.085
train_accuracy:94.547
[29,   300] loss: 0.309  test_accuracy:62.259
train_accuracy:90.111
[29,   350] loss: 0.392  test_accuracy:63.085
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```
train_accuracy:93.346
[30,    50] loss: 0.160  test_accuracy:63.085
train_accuracy:94.686
[30,   100] loss: 0.234  test_accuracy:61.983
train_accuracy:94.270
[30,   150] loss: 0.169  test_accuracy:58.678
train_accuracy:94.501
[30,   200] loss: 0.215  test_accuracy:62.534
train_accuracy:96.580
[30,   250] loss: 0.197  test_accuracy:63.085
train_accuracy:95.055
[30,   300] loss: 0.193  test_accuracy:61.708
train_accuracy:92.421
[30,   350] loss: 0.247  test_accuracy:58.953
train_accuracy:91.636
[31,    50] loss: 0.161  test_accuracy:61.157
train_accuracy:94.640
[31,   100] loss: 0.249  test_accuracy:62.810
train_accuracy:92.791
[31,   150] loss: 0.183  test_accuracy:60.331
train_accuracy:94.131
[31,   200] loss: 0.211  test_accuracy:61.983
train_accuracy:94.824
[31,   250] loss: 0.341  test_accuracy:59.504
train_accuracy:91.590
[31,   300] loss: 0.277  test_accuracy:62.259
train_accuracy:92.283
[31,   350] loss: 0.231  test_accuracy:62.259
train_accuracy:95.980
[32,    50] loss: 0.160  test_accuracy:63.361
train_accuracy:93.715
[32,   100] loss: 0.162  test_accuracy:57.300
train_accuracy:94.316
[32,   150] loss: 0.116  test_accuracy:60.331
train_accuracy:97.736
[32,   200] loss: 0.196  test_accuracy:62.259
train_accuracy:96.303
[32,   250] loss: 0.218  test_accuracy:60.606
train_accuracy:90.943
[32,   300] loss: 0.205  test_accuracy:58.127
train_accuracy:93.577
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```
[32, 350] loss: 0.169 test_accuracy:65.014
train_accuracy:95.749
[33, 50] loss: 0.186 test_accuracy:57.576
train_accuracy:91.312
[33, 100] loss: 0.147 test_accuracy:62.259
train_accuracy:96.165
[33, 150] loss: 0.227 test_accuracy:59.229
train_accuracy:95.841
[33, 200] loss: 0.161 test_accuracy:64.463
train_accuracy:97.458
[33, 250] loss: 0.163 test_accuracy:60.882
train_accuracy:96.904
[33, 300] loss: 0.139 test_accuracy:64.187
train_accuracy:96.072
[33, 350] loss: 0.389 test_accuracy:58.127
train_accuracy:89.741
[34, 50] loss: 0.153 test_accuracy:58.953
train_accuracy:97.597
[34, 100] loss: 0.062 test_accuracy:59.504
train_accuracy:97.874
[34, 150] loss: 0.085 test_accuracy:63.085
train_accuracy:98.475
[34, 200] loss: 0.234 test_accuracy:60.055
train_accuracy:96.072
[34, 250] loss: 0.231 test_accuracy:60.055
train_accuracy:96.950
[34, 300] loss: 0.195 test_accuracy:60.055
train_accuracy:95.333
[34, 350] loss: 0.146 test_accuracy:61.708
train_accuracy:97.227
[35, 50] loss: 0.086 test_accuracy:64.463
train_accuracy:97.782
[35, 100] loss: 0.080 test_accuracy:62.810
train_accuracy:97.043
[35, 150] loss: 0.115 test_accuracy:62.810
train_accuracy:98.660
[35, 200] loss: 0.094 test_accuracy:58.678
train_accuracy:95.749
[35, 250] loss: 0.073 test_accuracy:59.780
train_accuracy:97.274
[35, 300] loss: 0.165 test_accuracy:54.821
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```
train_accuracy:89.048
[35, 350] loss: 0.235 test_accuracy:60.055
train_accuracy:96.765
[36, 50] loss: 0.109 test_accuracy:61.433
train_accuracy:97.736
[36, 100] loss: 0.096 test_accuracy:66.116
train_accuracy:98.336
[36, 150] loss: 0.087 test_accuracy:64.463
train_accuracy:97.320
[36, 200] loss: 0.123 test_accuracy:60.606
train_accuracy:97.643
[36, 250] loss: 0.123 test_accuracy:62.259
train_accuracy:96.396
[36, 300] loss: 0.097 test_accuracy:63.636
train_accuracy:98.244
[36, 350] loss: 0.062 test_accuracy:62.259
train_accuracy:95.055
[37, 50] loss: 0.140 test_accuracy:60.606
train_accuracy:95.702
[37, 100] loss: 0.075 test_accuracy:63.912
train_accuracy:96.858
[37, 150] loss: 0.100 test_accuracy:64.187
train_accuracy:97.828
[37, 200] loss: 0.353 test_accuracy:63.361
train_accuracy:96.950
[37, 250] loss: 0.126 test_accuracy:64.463
train_accuracy:97.089
[37, 300] loss: 0.075 test_accuracy:63.085
train_accuracy:98.152
[37, 350] loss: 0.094 test_accuracy:61.433
train_accuracy:95.702
[38, 50] loss: 0.050 test_accuracy:63.912
train_accuracy:97.874
[38, 100] loss: 0.055 test_accuracy:66.391
train_accuracy:98.891
[38, 150] loss: 0.051 test_accuracy:64.738
train_accuracy:98.660
[38, 200] loss: 0.034 test_accuracy:62.534
train_accuracy:98.937
[38, 250] loss: 0.047 test_accuracy:61.983
train_accuracy:99.307
```

文件- garbage_CNN

```
[38, 300] loss: 0.030 test_accuracy:63.636
train_accuracy:99.399
[38, 350] loss: 0.039 test_accuracy:62.259
train_accuracy:99.307
[39, 50] loss: 0.029 test_accuracy:63.361
train_accuracy:99.214
[39, 100] loss: 0.029 test_accuracy:65.014
train_accuracy:99.261
[39, 150] loss: 0.011 test_accuracy:63.361
train_accuracy:99.677
[39, 200] loss: 0.027 test_accuracy:64.463
train_accuracy:99.815
[39, 250] loss: 0.014 test_accuracy:64.187
train_accuracy:99.769
[39, 300] loss: 0.016 test_accuracy:63.636
train_accuracy:99.769
[39, 350] loss: 0.022 test_accuracy:62.259
train_accuracy:99.445
[40, 50] loss: 0.007 test_accuracy:64.738
train_accuracy:99.769
[40, 100] loss: 0.012 test_accuracy:65.289
train_accuracy:99.723
[40, 150] loss: 0.014 test_accuracy:63.636
train_accuracy:99.815
[40, 200] loss: 0.015 test_accuracy:64.738
train_accuracy:99.815
[40, 250] loss: 0.036 test_accuracy:63.085
train_accuracy:99.769
[40, 300] loss: 0.018 test_accuracy:63.361
train_accuracy:99.861
[40, 350] loss: 0.011 test_accuracy:63.636
train_accuracy:99.861
[41, 50] loss: 0.017 test_accuracy:64.187
train_accuracy:99.861
[41, 100] loss: 0.004 test_accuracy:64.738
train_accuracy:99.861
[41, 150] loss: 0.009 test_accuracy:64.187
train_accuracy:99.769
[41, 200] loss: 0.006 test_accuracy:65.289
train_accuracy:99.861
[41, 250] loss: 0.005 test_accuracy:63.636
```

文件- garbage_CNN

```
train_accuracy:99.861  
[41, 300] loss: 0.028 test_accuracy:65.014  
train_accuracy:99.861  
[41, 350] loss: 0.033 test_accuracy:62.259  
train_accuracy:98.983  
[42, 50] loss: 0.011 test_accuracy:65.565  
train_accuracy:99.769  
[42, 100] loss: 0.009 test_accuracy:65.289  
train_accuracy:99.861  
[42, 150] loss: 0.004 test_accuracy:64.738  
train_accuracy:99.908  
[42, 200] loss: 0.004 test_accuracy:65.289  
train_accuracy:99.861  
[42, 250] loss: 0.014 test_accuracy:63.085  
train_accuracy:99.538  
[42, 300] loss: 0.018 test_accuracy:64.738  
train_accuracy:99.908  
[42, 350] loss: 0.005 test_accuracy:64.463  
train_accuracy:99.908  
[43, 50] loss: 0.002 test_accuracy:64.187  
train_accuracy:99.908  
[43, 100] loss: 0.002 test_accuracy:64.738  
train_accuracy:99.908  
[43, 150] loss: 0.002 test_accuracy:65.014  
train_accuracy:99.908  
[43, 200] loss: 0.009 test_accuracy:64.187  
train_accuracy:99.908  
[43, 250] loss: 0.004 test_accuracy:64.463  
train_accuracy:99.908  
[43, 300] loss: 0.025 test_accuracy:65.014  
train_accuracy:99.908  
[43, 350] loss: 0.010 test_accuracy:65.565  
train_accuracy:99.861  
[44, 50] loss: 0.012 test_accuracy:63.085  
train_accuracy:99.908  
[44, 100] loss: 0.003 test_accuracy:63.912  
train_accuracy:99.908  
[44, 150] loss: 0.003 test_accuracy:63.636  
train_accuracy:99.908  
[44, 200] loss: 0.003 test_accuracy:63.912  
train_accuracy:99.908
```

文件- garbage_CNN

```
[44, 250] loss: 0.001 test_accuracy:64.738
train_accuracy:99.908
[44, 300] loss: 0.002 test_accuracy:64.738
train_accuracy:99.908
[44, 350] loss: 0.013 test_accuracy:63.085
train_accuracy:99.908
[45, 50] loss: 0.012 test_accuracy:65.565
train_accuracy:99.908
[45, 100] loss: 0.003 test_accuracy:65.565
train_accuracy:99.908
[45, 150] loss: 0.006 test_accuracy:65.014
train_accuracy:99.908
[45, 200] loss: 0.001 test_accuracy:64.738
train_accuracy:99.908
[45, 250] loss: 0.002 test_accuracy:65.289
train_accuracy:99.908
[45, 300] loss: 0.001 test_accuracy:65.289
train_accuracy:99.908
[45, 350] loss: 0.012 test_accuracy:65.565
train_accuracy:99.908
[46, 50] loss: 0.002 test_accuracy:65.565
train_accuracy:99.908
[46, 100] loss: 0.002 test_accuracy:65.565
train_accuracy:99.908
[46, 150] loss: 0.001 test_accuracy:65.840
train_accuracy:99.908
[46, 200] loss: 0.012 test_accuracy:63.085
train_accuracy:99.908
[46, 250] loss: 0.002 test_accuracy:63.085
train_accuracy:99.908
[46, 300] loss: 0.002 test_accuracy:63.636
train_accuracy:99.908
[46, 350] loss: 0.012 test_accuracy:64.738
train_accuracy:99.908
[47, 50] loss: 0.002 test_accuracy:64.463
train_accuracy:99.908
[47, 100] loss: 0.002 test_accuracy:65.014
train_accuracy:99.908
[47, 150] loss: 0.001 test_accuracy:65.014
train_accuracy:99.908
[47, 200] loss: 0.001 test_accuracy:65.565
```

文件- garbage_CNN

```
train_accuracy:99.908  
[47, 250] loss: 0.012 test_accuracy:65.565  
train_accuracy:99.908  
[47, 300] loss: 0.002 test_accuracy:65.014  
train_accuracy:99.908  
[47, 350] loss: 0.011 test_accuracy:65.840  
train_accuracy:99.908  
[48, 50] loss: 0.002 test_accuracy:65.289  
train_accuracy:99.908  
[48, 100] loss: 0.021 test_accuracy:65.565  
train_accuracy:99.908  
[48, 150] loss: 0.009 test_accuracy:64.738  
train_accuracy:99.861  
[48, 200] loss: 0.003 test_accuracy:63.912  
train_accuracy:99.908  
[48, 250] loss: 0.002 test_accuracy:64.463  
train_accuracy:99.908  
[48, 300] loss: 0.002 test_accuracy:65.289  
train_accuracy:99.908  
[48, 350] loss: 0.009 test_accuracy:64.738  
train_accuracy:99.908  
[49, 50] loss: 0.001 test_accuracy:64.463  
train_accuracy:99.908  
[49, 100] loss: 0.007 test_accuracy:63.912  
train_accuracy:99.908  
[49, 150] loss: 0.013 test_accuracy:65.289  
train_accuracy:99.908  
[49, 200] loss: 0.002 test_accuracy:65.289  
train_accuracy:99.908  
[49, 250] loss: 0.011 test_accuracy:64.738  
train_accuracy:99.908  
[49, 300] loss: 0.008 test_accuracy:64.738  
train_accuracy:99.908  
[49, 350] loss: 0.001 test_accuracy:64.738  
train_accuracy:99.908  
[50, 50] loss: 0.007 test_accuracy:65.014  
train_accuracy:99.908  
[50, 100] loss: 0.007 test_accuracy:64.738  
train_accuracy:99.908  
[50, 150] loss: 0.001 test_accuracy:64.738  
train_accuracy:99.908
```

文件- garbage_CNN

```
[50, 200] loss: 0.001 test_accuracy:65.014
train_accuracy:99.908
[50, 250] loss: 0.009 test_accuracy:65.840
train_accuracy:99.908
[50, 300] loss: 0.001 test_accuracy:66.116
train_accuracy:99.908
[50, 350] loss: 0.001 test_accuracy:65.289
train_accuracy:99.908
end train!time:1439 seconds
begin test
test accuracy: 64 %
```

~~进程结束退出码为0~~