

dtree pendigits_training pendigits_test optimized 50

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tree= 0, node= 1, feature=15, thr= 25.00, gain=0.622315
tree= 0, node= 2, feature= 4, thr= 41.00, gain=0.587774
tree= 0, node= 3, feature=13, thr= 58.00, gain=0.693090
tree= 0, node= 4, feature= 9, thr= 19.00, gain=0.694970
tree= 0, node= 5, feature=10, thr= 39.00, gain=0.621049
tree= 0, node= 6, feature= 0, thr= 35.00, gain=0.702301
tree= 0, node= 7, feature= 8, thr= 58.00, gain=0.797073
tree= 0, node= 8, feature=14, thr= 54.00, gain=0.484033
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tree= 0, node=10, feature=14, thr= 37.00, gain=0.224463
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tree= 0, node=13, feature=10, thr= 31.00, gain=0.575440
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tree= 0, node=15, feature= 7, thr= 27.00, gain=0.229647
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tree= 0, node=22, feature= 6, thr= 72.00, gain=0.526344
tree= 0, node=23, feature= 7, thr= 77.00, gain=0.395532
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tree= 0, node=47, feature= 5, thr= 90.00, gain=0.788950
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tree= 0, node=54, feature= 6, thr= 41.00, gain=0.275487
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tree= 0, node=184, feature= 9, thr= 29.00, gain=0.468074
tree= 0, node=185, feature= 9, thr= 21.00, gain=0.690429
tree= 0, node=186, feature= 2, thr= 90.00, gain=0.128421
tree= 0, node=187, feature=-1, thr= -1.00, gain=0.000000
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tree= 0, node=370, feature=-1, thr= -1.00, gain=0.000000
tree= 0, node=371, feature= 1, thr= 81.00, gain=0.612101
tree= 0, node=372, feature= 9, thr= 9.00, gain=0.054826
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tree= 0, node=383, feature= 2, thr= 46.00, gain=0.172037
tree= 0, node=612, feature=-1, thr= -1.00, gain=0.000000

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tree= 0, node=613, feature= 2, thr= 1.00, gain=0.094084
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tree= 0, node=743, feature= 8, thr= 98.00, gain=0.618993
tree= 0, node=744, feature=-1, thr= -1.00, gain=0.000000
tree= 0, node=745, feature= 3, thr= 98.00, gain=0.050882
tree= 0, node=766, feature= 1, thr= 67.00, gain=0.074751
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```

classification accuracy=0.8562

dtree pendigits_training pendigits_test randomized 50

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tree= 0, node= 2, feature= 3, thr= 92.00, gain=0.485057
tree= 0, node= 3, feature= 6, thr= 31.00, gain=0.195809
tree= 0, node= 4, feature= 2, thr= 23.00, gain=0.369427
tree= 0, node= 5, feature=16, thr= 5.00, gain=0.996096
tree= 0, node= 6, feature= 3, thr= 73.00, gain=0.490259
tree= 0, node= 7, feature=14, thr= 98.00, gain=0.308137
tree= 0, node= 8, feature= 5, thr= 35.00, gain=0.642950
tree= 0, node= 9, feature= 4, thr= 47.00, gain=0.620167
tree= 0, node=10, feature=14, thr= 19.00, gain=0.172330
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tree= 0, node=13, feature=10, thr= 43.00, gain=0.777116
tree= 0, node=14, feature=16, thr= 5.00, gain=0.977418
tree= 0, node=15, feature=15, thr= 23.00, gain=0.890946
tree= 0, node=16, feature=11, thr= 71.00, gain=0.046291
tree= 0, node=17, feature= 7, thr= 25.00, gain=0.702671
tree= 0, node=18, feature=11, thr= 37.00, gain=0.652377
tree= 0, node=19, feature= 3, thr= 74.00, gain=0.176175
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tree= 0, node= 20, feature=11, thr= 41.00, gain=0.074532
tree= 0, node= 21, feature=10, thr= 90.00, gain=0.405700
tree= 0, node= 22, feature=16, thr= 7.00, gain=0.999875
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tree= 0, node= 65, feature= 6, thr= 25.00, gain=0.108454
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tree= 0, node=118, feature=15, thr= 66.00, gain=0.691006
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tree= 0, node=123, feature=-1, thr= -1.00, gain=0.000000
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tree= 0, node=7712, feature=-1, thr= -1.00, gain=0.000000
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tree= 0, node=246990, feature=-1, thr= -1.00, gain=0.000000
tree= 0, node=246991, feature=-1, thr= -1.00, gain=0.000000
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classification accuracy=0.7910

dtree pendigits_training pendigits_test forest3 50

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tree= 0, node= 1, feature=14, thr= 49.00, gain=0.424650
tree= 0, node= 2, feature= 0, thr= 52.00, gain=0.354911
tree= 0, node= 3, feature= 0, thr=  3.00, gain=0.344025
tree= 0, node= 4, feature=15, thr= 25.00, gain=0.747367
tree= 0, node= 5, feature= 1, thr= 98.00, gain=0.359026
tree= 0, node= 6, feature= 5, thr= 60.00, gain=0.237429
tree= 0, node= 7, feature= 8, thr= 50.00, gain=0.529191
tree= 0, node= 8, feature= 3, thr= 92.00, gain=0.712612
tree= 0, node= 9, feature=11, thr= 35.00, gain=0.367011
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tree= 0, node=11, feature= 3, thr= 84.00, gain=0.130667
tree= 0, node=12, feature=15, thr= 82.00, gain=0.985909
tree= 0, node=13, feature=13, thr= 27.00, gain=0.512504
tree= 0, node=14, feature= 4, thr= 37.00, gain=0.286149
tree= 0, node=15, feature= 2, thr= 54.00, gain=0.237722
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tree= 0, node=17, feature=10, thr= 73.00, gain=0.206504
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tree= 0, node= 19, feature=13, thr= 54.00, gain=0.033813
tree= 0, node= 20, feature= 8, thr= 52.00, gain=0.505760
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tree= 2, node=5686, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=5687, feature=13, thr= 12.00, gain=0.052446
tree= 2, node=5746, feature=12, thr= 37.00, gain=0.020598
tree= 2, node=5747, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=5750, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=5751, feature= 3, thr= 99.00, gain=0.001659
tree= 2, node=5800, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=5801, feature=-1, thr= -1.00, gain=0.000000

tree= 2, node=5826, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=5827, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=5828, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=5829, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=5860, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=5861, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=5864, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=5865, feature= 1, thr= 83.00, gain=0.420825
tree= 2, node=5866, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=5867, feature=15, thr= 15.00, gain=0.124382
tree= 2, node=5974, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=5975, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=6138, feature= 7, thr= 92.00, gain=0.097371
tree= 2, node=6139, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=7034, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=7035, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=7066, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=7067, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=7078, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=7079, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=9470, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=9471, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=11362, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=11363, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=11374, feature=16, thr= 2.00, gain=0.000000
tree= 2, node=11375, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=11492, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=11493, feature=10, thr= 15.00, gain=0.344296
tree= 2, node=11502, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=11503, feature= 0, thr= 9.00, gain=0.216397
tree= 2, node=11730, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=11731, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=11734, feature=12, thr= 55.00, gain=0.026962
tree= 2, node=11735, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=12276, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=12277, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=22748, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=22749, feature=14, thr= 19.00, gain=0.598347
tree= 2, node=22986, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=22987, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=23006, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=23007, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=23468, feature=-1, thr= -1.00, gain=0.000000
tree= 2, node=23469, feature=-1, thr= -1.00, gain=0.000000

tree= 2, node=45498, feature=-1, thr= -1.00, gain=0.000000

tree= 2, node=45499, feature=-1, thr= -1.00, gain=0.000000

classification accuracy=0.8476