Train resnet56 baseline model

Resume pretrained resnet56 model

Tpe + no constraint

Tpe + constraint = sparsity = 70%~2.5%, early exit if sparsity not in this constraint

Random + no constraint

Random + constraint = sparsity = 70%~2.5%, early exit if sparsity not in this constraint

python3 ../classifier\_compression/compress\_classifier.py --arch resnet56\_cifar --lr 0.03 -p 50 ../../../data.cifar10 -b 128 -j 1 --vs 0 --deterministic --epochs 3 --compress=./resnet56\_cifar\_baseline\_training.yaml

python auto.py --arch resnet56\_cifar --gpus=0 --lr=0.003 ../../../data.cifar10 -b=128 -j=1 --deterministic --resume='./pertrain base line/2018.11.08-213504/best.pth.tar' --rounds=100

space[name] = hp.uniform(name, 0.00, 0.99)

python auto.py --arch resnet56\_cifar --gpus=0 --lr=0.003 ../../../data.cifar10 -b=128 -j=1 --deterministic --resume='./pertrain base line/2018.11.08-213504/best.pth.tar'

Files already downloaded and verified

Files already downloaded and verified

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 93.7578, val\_acc: 96.1600, sparsity: 52.5355

1 trials: score: 0.1808, train\_acc:93.7578, val\_acc:96.1600, test\_acc:88.4700, sparsity:52.5355

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 95.1422, val\_acc: 96.6800, sparsity: 48.7589

2 trials: score: 0.1869, train\_acc:95.1422, val\_acc:96.6800, test\_acc:89.1200, sparsity:48.7589

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 96.4378, val\_acc: 97.6800, sparsity: 44.4524

3 trials: score: 0.1898, train\_acc:96.4378, val\_acc:97.6800, test\_acc:89.0100, sparsity:44.4524

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 96.3778, val\_acc: 97.4600, sparsity: 48.0545

4 trials: score: 0.1812, train\_acc:96.3778, val\_acc:97.4600, test\_acc:89.6600, sparsity:48.0545

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 96.3467, val\_acc: 96.9400, sparsity: 38.3986

5 trials: score: 0.2154, train\_acc:96.3467, val\_acc:96.9400, test\_acc:88.4000, sparsity:38.3986

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 96.5622, val\_acc: 97.4000, sparsity: 45.0057

6 trials: score: 0.1910, train\_acc:96.5622, val\_acc:97.4000, test\_acc:89.2200, sparsity:45.0057

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 95.6489, val\_acc: 96.6200, sparsity: 47.8257

7 trials: score: 0.1903, train\_acc:95.6489, val\_acc:96.6200, test\_acc:89.3900, sparsity:47.8257

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 93.6556, val\_acc: 95.6600, sparsity: 53.2371

8 trials: score: 0.1837, train\_acc:93.6556, val\_acc:95.6600, test\_acc:88.2500, sparsity:53.2371

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 95.0711, val\_acc: 96.5800, sparsity: 44.4171

9 trials: score: 0.2009, train\_acc:95.0711, val\_acc:96.5800, test\_acc:88.5000, sparsity:44.4171

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 94.9133, val\_acc: 96.7000, sparsity: 47.7542

10 trials: score: 0.1897, train\_acc:94.9133, val\_acc:96.7000, test\_acc:89.2600, sparsity:47.7542

{'module.layer2.7.conv2.weight': 0.21819395933601055, 'module.layer1.5.conv1.weight': 0.2860954197993723, 'module.layer2.2.conv2.weight': 0.5796245575584197, 'module.layer1.1.conv1.weight': 0.8781791173640642, 'module.layer3.2.conv2.weight': 0.4241690519111234, 'module.layer2.1.conv2.weight': 0.3708619916796446, 'module.layer1.4.conv2.weight': 0.03746097991212435, 'module.layer3.1.conv2.weight': 0.52042652940282, 'module.layer1.2.conv1.weight': 0.8939258426334706, 'module.layer2.5.conv1.weight': 0.8812318617851123, 'module.layer2.1.conv1.weight': 0.3020846623793775, 'module.conv1.weight': 0.4987758411485919, 'module.layer1.5.conv2.weight': 0.44288127741843075, 'module.layer2.3.conv2.weight': 0.6940263731388481, 'module.layer3.8.conv1.weight': 0.8576409617536012, 'module.layer3.3.conv2.weight': 0.2479322608060361, 'module.layer1.8.conv1.weight': 0.2418641079417525, 'module.layer2.4.conv1.weight': 0.07470550632691873, 'module.layer3.4.conv1.weight': 0.46658941114459535, 'module.layer2.8.conv2.weight': 0.779708715125794, 'module.layer1.8.conv2.weight': 0.6218816526976297, 'module.layer3.8.conv2.weight': 0.15023519644031297, 'module.layer3.7.conv2.weight': 0.6956785227428247, 'module.layer3.6.conv1.weight': 0.08539812925821275, 'module.layer3.1.conv1.weight': 0.4615826174768163, 'module.layer3.5.conv2.weight': 0.7673573197260487, 'module.layer1.7.conv2.weight': 0.9466937659029453, 'module.layer3.4.conv2.weight': 0.8813031391910812, 'module.layer1.7.conv1.weight': 0.10773923042568491, 'module.layer2.5.conv2.weight': 0.2043590099383751, 'module.layer2.4.conv2.weight': 0.4852573085901967, 'module.layer1.6.conv1.weight': 0.8734203722457923, 'module.layer1.0.conv2.weight': 0.19131411478478902, 'module.layer2.0.conv1.weight': 0.8347283919460252, 'module.layer2.6.conv1.weight': 0.8485186812387328, 'module.layer3.5.conv1.weight': 0.9749228641038471, 'module.layer3.7.conv1.weight': 0.15152923365074433, 'module.layer2.3.conv1.weight': 0.7503188326648439, 'module.layer1.3.conv1.weight': 0.9167223566221208, 'module.layer3.0.conv2.weight': 0.6101434307454194, 'module.layer3.0.conv1.weight': 0.47408056887437106, 'module.layer2.0.conv2.weight': 0.5091286062014326, 'module.layer2.6.conv2.weight': 0.9299412515340443, 'module.layer1.0.conv1.weight': 0.8514145627189112, 'module.layer3.6.conv2.weight': 0.19037206061240222, 'module.layer2.8.conv1.weight': 0.49179678865637516, 'module.layer1.4.conv1.weight': 0.9254304597742814, 'module.layer1.2.conv2.weight': 0.6339529022401881, 'module.layer3.2.conv1.weight': 0.9163634329865582, 'module.layer2.2.conv1.weight': 0.23395501874696406, 'module.layer1.6.conv2.weight': 0.6514333219010785, 'module.layer1.1.conv2.weight': 0.5152230984935405, 'module.layer2.7.conv1.weight': 0.9156167507241226, 'module.layer1.3.conv2.weight': 0.8225259276205181, 'module.layer3.3.conv1.weight': 0.392011117698078}

TPE, constraint

space[name] = hp.uniform(name, 0.30, 0.99)

python auto.py --arch resnet56\_cifar --gpus=0 --lr=0.003 ../../../data.cifar10 -b=128 -j=1 --deterministic --resume='./pertrain base line/2018.11.08-213504/best.pth.tar' --rounds=100

Files already downloaded and verified

Files already downloaded and verified

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 92.5667, val\_acc: 94.7400, sparsity: 66.3634

1 trials: score: 0.1535, train\_acc:92.5667, val\_acc:94.7400, test\_acc:88.1000, sparsity:66.3634

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 87.6733, val\_acc: 91.8800, sparsity: 64.1261

2 trials: score: 0.1888, train\_acc:87.6733, val\_acc:91.8800, test\_acc:86.6000, sparsity:64.1261

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 82.1822, val\_acc: 88.7400, sparsity: 66.7591

3 trials: score: 0.2123, train\_acc:82.1822, val\_acc:88.7400, test\_acc:84.5100, sparsity:66.7591

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 92.8400, val\_acc: 95.7200, sparsity: 63.4922

4 trials: score: 0.1523, train\_acc:92.8400, val\_acc:95.7200, test\_acc:88.3900, sparsity:63.4922

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 87.8933, val\_acc: 92.3800, sparsity: 61.7990

5 trials: score: 0.1908, train\_acc:87.8933, val\_acc:92.3800, test\_acc:87.0800, sparsity:61.7990

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 91.5444, val\_acc: 93.7000, sparsity: 64.2736

6 trials: score: 0.1702, train\_acc:91.5444, val\_acc:93.7000, test\_acc:87.2700, sparsity:64.2736

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 88.6244, val\_acc: 92.6400, sparsity: 64.7719

7 trials: score: 0.1793, train\_acc:88.6244, val\_acc:92.6400, test\_acc:87.3000, sparsity:64.7719

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 94.4311, val\_acc: 96.3400, sparsity: 65.9181

8 trials: score: 0.1388, train\_acc:94.4311, val\_acc:96.3400, test\_acc:88.8200, sparsity:65.9181

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 92.4044, val\_acc: 94.9600, sparsity: 63.7628

9 trials: score: 0.1591, train\_acc:92.4044, val\_acc:94.9600, test\_acc:88.4700, sparsity:63.7628

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 91.4022, val\_acc: 94.6000, sparsity: 62.7523

10 trials: score: 0.1657, train\_acc:91.4022, val\_acc:94.6000, test\_acc:88.0300, sparsity:62.7523

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 89.5067, val\_acc: 93.7800, sparsity: 68.3384

Epoch: 1, train\_acc: 90.5933, val\_acc: 90.8400, sparsity: 68.3384

Epoch: 2, train\_acc: 92.1000, val\_acc: 93.7800, sparsity: 68.3384

Epoch: 3, train\_acc: 92.9956, val\_acc: 93.7400, sparsity: 68.3384

Epoch: 4, train\_acc: 93.8200, val\_acc: 94.7600, sparsity: 68.3384

Epoch: 5, train\_acc: 94.2089, val\_acc: 94.6400, sparsity: 68.3384

Epoch: 6, train\_acc: 94.9333, val\_acc: 94.1000, sparsity: 68.3384

Epoch: 7, train\_acc: 94.9022, val\_acc: 93.6800, sparsity: 68.3384

Epoch: 8, train\_acc: 95.3111, val\_acc: 95.4600, sparsity: 68.3384

Epoch: 9, train\_acc: 95.3511, val\_acc: 94.5400, sparsity: 68.3384

Epoch: 10, train\_acc: 97.1711, val\_acc: 95.3000, sparsity: 68.3384

Epoch: 11, train\_acc: 97.4533, val\_acc: 96.1400, sparsity: 68.3384

Epoch: 12, train\_acc: 97.5556, val\_acc: 96.8200, sparsity: 68.3384

Epoch: 13, train\_acc: 97.7689, val\_acc: 95.7400, sparsity: 68.3384

Epoch: 14, train\_acc: 97.6400, val\_acc: 95.8000, sparsity: 68.3384

Epoch: 15, train\_acc: 97.7533, val\_acc: 96.4800, sparsity: 68.3384

Epoch: 16, train\_acc: 97.7867, val\_acc: 96.4200, sparsity: 68.3384

Epoch: 17, train\_acc: 97.9289, val\_acc: 96.0000, sparsity: 68.3384

Epoch: 18, train\_acc: 97.9289, val\_acc: 95.0800, sparsity: 68.3384

Epoch: 19, train\_acc: 97.9644, val\_acc: 95.9600, sparsity: 68.3384

Epoch: 20, train\_acc: 98.8022, val\_acc: 96.8800, sparsity: 68.3384

Epoch: 21, train\_acc: 98.9222, val\_acc: 97.1200, sparsity: 68.3384

Epoch: 22, train\_acc: 98.9822, val\_acc: 97.1800, sparsity: 68.3384

Epoch: 23, train\_acc: 98.9600, val\_acc: 96.8200, sparsity: 68.3384

Epoch: 24, train\_acc: 98.9222, val\_acc: 97.3000, sparsity: 68.3384

Epoch: 25, train\_acc: 98.9600, val\_acc: 97.0200, sparsity: 68.3384

Epoch: 26, train\_acc: 98.9533, val\_acc: 97.1000, sparsity: 68.3384

Epoch: 27, train\_acc: 99.0822, val\_acc: 97.1000, sparsity: 68.3384

Epoch: 28, train\_acc: 99.0489, val\_acc: 97.0000, sparsity: 68.3384

Epoch: 29, train\_acc: 98.9956, val\_acc: 96.5000, sparsity: 68.3384

Epoch: 30, train\_acc: 99.0800, val\_acc: 97.0000, sparsity: 68.3384

Epoch: 31, train\_acc: 99.0600, val\_acc: 97.0400, sparsity: 68.3384

Epoch: 32, train\_acc: 99.1911, val\_acc: 96.7600, sparsity: 68.3384

Epoch: 33, train\_acc: 99.1978, val\_acc: 96.8400, sparsity: 68.3384

Epoch: 34, train\_acc: 99.1467, val\_acc: 96.8000, sparsity: 68.3384

Epoch: 35, train\_acc: 99.3889, val\_acc: 97.3600, sparsity: 68.3384

Epoch: 36, train\_acc: 99.3733, val\_acc: 97.4400, sparsity: 68.3384

Epoch: 37, train\_acc: 99.4978, val\_acc: 97.0600, sparsity: 68.3384

Epoch: 38, train\_acc: 99.4022, val\_acc: 97.2600, sparsity: 68.3384

Epoch: 39, train\_acc: 99.4756, val\_acc: 97.1800, sparsity: 68.3384

Epoch: 40, train\_acc: 99.5333, val\_acc: 97.6200, sparsity: 68.3384

Epoch: 41, train\_acc: 99.4178, val\_acc: 96.9800, sparsity: 68.3384

Epoch: 42, train\_acc: 99.5089, val\_acc: 97.7000, sparsity: 68.3384

Epoch: 43, train\_acc: 99.4467, val\_acc: 97.4000, sparsity: 68.3384

Epoch: 44, train\_acc: 99.4689, val\_acc: 97.9400, sparsity: 68.3384

Epoch: 45, train\_acc: 99.5667, val\_acc: 97.3600, sparsity: 68.3384

Epoch: 46, train\_acc: 99.4889, val\_acc: 97.5400, sparsity: 68.3384

Epoch: 47, train\_acc: 99.5200, val\_acc: 97.5200, sparsity: 68.3384

Epoch: 48, train\_acc: 99.4800, val\_acc: 97.6600, sparsity: 68.3384

Epoch: 49, train\_acc: 99.5133, val\_acc: 97.6400, sparsity: 68.3384

Epoch: 50, train\_acc: 99.5333, val\_acc: 97.4200, sparsity: 68.3384

Epoch: 51, train\_acc: 99.4978, val\_acc: 97.2800, sparsity: 68.3384

Epoch: 52, train\_acc: 99.5311, val\_acc: 97.5400, sparsity: 68.3384

Epoch: 53, train\_acc: 99.5800, val\_acc: 97.5000, sparsity: 68.3384

Epoch: 54, train\_acc: 99.5667, val\_acc: 96.9800, sparsity: 68.3384

Epoch: 55, train\_acc: 99.5178, val\_acc: 97.3400, sparsity: 68.3384

Epoch: 56, train\_acc: 99.5244, val\_acc: 97.3000, sparsity: 68.3384

Epoch: 57, train\_acc: 99.5933, val\_acc: 97.4600, sparsity: 68.3384

Epoch: 58, train\_acc: 99.5889, val\_acc: 97.6200, sparsity: 68.3384

Epoch: 59, train\_acc: 99.5778, val\_acc: 97.6600, sparsity: 68.3384

Epoch: 60, train\_acc: 99.5667, val\_acc: 97.2600, sparsity: 68.3384

Epoch: 61, train\_acc: 99.5489, val\_acc: 97.0800, sparsity: 68.3384

Epoch: 62, train\_acc: 99.5644, val\_acc: 97.3800, sparsity: 68.3384

Epoch: 63, train\_acc: 99.5800, val\_acc: 97.3000, sparsity: 68.3384

Epoch: 64, train\_acc: 99.5800, val\_acc: 97.3800, sparsity: 68.3384

Epoch: 65, train\_acc: 99.5644, val\_acc: 97.6200, sparsity: 68.3384

Epoch: 66, train\_acc: 99.5600, val\_acc: 97.0200, sparsity: 68.3384

Epoch: 67, train\_acc: 99.6289, val\_acc: 97.8200, sparsity: 68.3384

Epoch: 68, train\_acc: 99.5600, val\_acc: 97.3800, sparsity: 68.3384

Epoch: 69, train\_acc: 99.6244, val\_acc: 97.4600, sparsity: 68.3384

Epoch: 70, train\_acc: 99.6044, val\_acc: 97.6800, sparsity: 68.3384

Epoch: 71, train\_acc: 99.6044, val\_acc: 97.4200, sparsity: 68.3384

Epoch: 72, train\_acc: 99.6000, val\_acc: 97.6600, sparsity: 68.3384

Epoch: 73, train\_acc: 99.6378, val\_acc: 97.7600, sparsity: 68.3384

Epoch: 74, train\_acc: 99.5222, val\_acc: 97.1800, sparsity: 68.3384

Epoch: 75, train\_acc: 99.6289, val\_acc: 97.2200, sparsity: 68.3384

Epoch: 76, train\_acc: 99.5822, val\_acc: 97.3200, sparsity: 68.3384

Epoch: 77, train\_acc: 99.6467, val\_acc: 97.6600, sparsity: 68.3384

Epoch: 78, train\_acc: 99.6578, val\_acc: 97.7400, sparsity: 68.3384

Epoch: 79, train\_acc: 99.6311, val\_acc: 97.0600, sparsity: 68.3384

Epoch: 80, train\_acc: 99.6022, val\_acc: 97.3200, sparsity: 68.3384

Epoch: 81, train\_acc: 99.6311, val\_acc: 97.5600, sparsity: 68.3384

Epoch: 82, train\_acc: 99.6222, val\_acc: 97.5000, sparsity: 68.3384

Epoch: 83, train\_acc: 99.6600, val\_acc: 97.7000, sparsity: 68.3384

Epoch: 84, train\_acc: 99.6556, val\_acc: 97.6600, sparsity: 68.3384

Epoch: 85, train\_acc: 99.6556, val\_acc: 97.3600, sparsity: 68.3384

Epoch: 86, train\_acc: 99.7222, val\_acc: 97.5200, sparsity: 68.3384

Epoch: 87, train\_acc: 99.6067, val\_acc: 97.5200, sparsity: 68.3384

Epoch: 88, train\_acc: 99.6756, val\_acc: 97.6000, sparsity: 68.3384

Epoch: 89, train\_acc: 99.6333, val\_acc: 97.7800, sparsity: 68.3384

Epoch: 90, train\_acc: 99.6644, val\_acc: 97.4000, sparsity: 68.3384

Epoch: 91, train\_acc: 99.7000, val\_acc: 97.4200, sparsity: 68.3384

Epoch: 92, train\_acc: 99.6911, val\_acc: 97.3000, sparsity: 68.3384

Epoch: 93, train\_acc: 99.6667, val\_acc: 97.5400, sparsity: 68.3384

Epoch: 94, train\_acc: 99.6511, val\_acc: 97.6800, sparsity: 68.3384

Epoch: 95, train\_acc: 99.6178, val\_acc: 97.0200, sparsity: 68.3384

Epoch: 96, train\_acc: 99.6200, val\_acc: 97.5800, sparsity: 68.3384

Epoch: 97, train\_acc: 99.6911, val\_acc: 97.0600, sparsity: 68.3384

Epoch: 98, train\_acc: 99.6578, val\_acc: 97.5800, sparsity: 68.3384

Epoch: 99, train\_acc: 99.6844, val\_acc: 97.3800, sparsity: 68.3384

Epoch: 100, train\_acc: 99.6911, val\_acc: 97.6200, sparsity: 68.3384

Epoch: 101, train\_acc: 99.7333, val\_acc: 97.4600, sparsity: 68.3384

Epoch: 102, train\_acc: 99.6800, val\_acc: 97.3800, sparsity: 68.3384

Epoch: 103, train\_acc: 99.6311, val\_acc: 97.7000, sparsity: 68.3384

Epoch: 104, train\_acc: 99.7267, val\_acc: 97.7400, sparsity: 68.3384

Epoch: 105, train\_acc: 99.7044, val\_acc: 97.4400, sparsity: 68.3384

Epoch: 106, train\_acc: 99.7200, val\_acc: 97.4200, sparsity: 68.3384

Epoch: 107, train\_acc: 99.7067, val\_acc: 97.5000, sparsity: 68.3384

Epoch: 108, train\_acc: 99.6689, val\_acc: 97.6200, sparsity: 68.3384

Epoch: 109, train\_acc: 99.6756, val\_acc: 96.9200, sparsity: 68.3384

Epoch: 110, train\_acc: 99.6133, val\_acc: 97.2000, sparsity: 68.3384

Epoch: 111, train\_acc: 99.6956, val\_acc: 97.2000, sparsity: 68.3384

Epoch: 112, train\_acc: 99.6489, val\_acc: 97.3200, sparsity: 68.3384

Epoch: 113, train\_acc: 99.7178, val\_acc: 97.3400, sparsity: 68.3384

Epoch: 114, train\_acc: 99.6711, val\_acc: 97.6200, sparsity: 68.3384

Epoch: 115, train\_acc: 99.6800, val\_acc: 97.3200, sparsity: 68.3384

Epoch: 116, train\_acc: 99.6911, val\_acc: 97.3800, sparsity: 68.3384

Epoch: 117, train\_acc: 99.7511, val\_acc: 97.4800, sparsity: 68.3384

Epoch: 118, train\_acc: 99.7289, val\_acc: 97.4800, sparsity: 68.3384

Epoch: 119, train\_acc: 99.6956, val\_acc: 97.1600, sparsity: 68.3384

11 trials: score: 0.1156, train\_acc:99.6956, val\_acc:97.1600, test\_acc:90.1500, sparsity:68.3384

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 91.3956, val\_acc: 94.0600, sparsity: 59.9692

12 trials: score: 0.1795, train\_acc:91.3956, val\_acc:94.0600, test\_acc:87.7200, sparsity:59.9692

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 91.2689, val\_acc: 94.9400, sparsity: 61.9591

13 trials: score: 0.1647, train\_acc:91.2689, val\_acc:94.9400, test\_acc:88.1900, sparsity:61.9591

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 93.7533, val\_acc: 96.2000, sparsity: 58.5260

14 trials: score: 0.1624, train\_acc:93.7533, val\_acc:96.2000, test\_acc:88.5700, sparsity:58.5260

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 82.6756, val\_acc: 88.3600, sparsity: 64.6548

15 trials: score: 0.2224, train\_acc:82.6756, val\_acc:88.3600, test\_acc:84.7200, sparsity:64.6548

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 94.2289, val\_acc: 96.0400, sparsity: 64.1218

16 trials: score: 0.1472, train\_acc:94.2289, val\_acc:96.0400, test\_acc:88.4400, sparsity:64.1218

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Epoch: 0, train\_acc: 89.8044, val\_acc: 93.5600, sparsity: 62.8186

17 trials: score: 0.1759, train\_acc:89.8044, val\_acc:93.5600, test\_acc:87.1200, sparsity:62.8186

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

Random, constraint

python auto.py --arch resnet56\_cifar --gpus=0 --lr=0.003 ../../../data.cifar10 -b=128 -j=1 --deterministic --resume='./pertrain base line/2018.11.08-213504/best.pth.tar' --rounds=20 --epochs=30

Files already downloaded and verified

Files already downloaded and verified

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

10.0

Epoch: 0, train\_acc: 91.4511, val\_acc: 93.5800, sparsity: 66.5504

1 trials: score: 0.1645, train\_acc:91.4511, val\_acc:93.5800, test\_acc:88.2200, sparsity:66.5504

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.1645489120426915

Epoch: 0, train\_acc: 89.0778, val\_acc: 92.6400, sparsity: 57.5066

2 trials: score: 0.2011, train\_acc:89.0778, val\_acc:92.6400, test\_acc:86.9400, sparsity:57.5066

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.1645489120426915

Epoch: 0, train\_acc: 92.9022, val\_acc: 95.2800, sparsity: 59.8809

3 trials: score: 0.1676, train\_acc:92.9022, val\_acc:95.2800, test\_acc:88.7800, sparsity:59.8809

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.1645489120426915

Epoch: 0, train\_acc: 94.2422, val\_acc: 95.9200, sparsity: 61.4135

4 trials: score: 0.1566, train\_acc:94.2422, val\_acc:95.9200, test\_acc:88.5700, sparsity:61.4135

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.1565596441120652

Epoch: 0, train\_acc: 92.0444, val\_acc: 94.1800, sparsity: 61.1647

5 trials: score: 0.1747, train\_acc:92.0444, val\_acc:94.1800, test\_acc:88.4200, sparsity:61.1647

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.1565596441120652

Epoch: 0, train\_acc: 88.4511, val\_acc: 92.3200, sparsity: 67.2153

6 trials: score: 0.1752, train\_acc:88.4511, val\_acc:92.3200, test\_acc:87.2300, sparsity:67.2153

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.1565596441120652

Epoch: 0, train\_acc: 92.1822, val\_acc: 94.6600, sparsity: 59.1565

7 trials: score: 0.1759, train\_acc:92.1822, val\_acc:94.6600, test\_acc:88.4100, sparsity:59.1565

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.1565596441120652

Epoch: 0, train\_acc: 95.2178, val\_acc: 96.6200, sparsity: 63.1227

8 trials: score: 0.1444, train\_acc:95.2178, val\_acc:96.6200, test\_acc:89.2400, sparsity:63.1227

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.14443201112384668

Epoch: 0, train\_acc: 88.6067, val\_acc: 91.5600, sparsity: 61.2630

9 trials: score: 0.2006, train\_acc:88.6067, val\_acc:91.5600, test\_acc:86.8200, sparsity:61.2630

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.14443201112384668

Epoch: 0, train\_acc: 92.2044, val\_acc: 94.5600, sparsity: 66.8386

10 trials: score: 0.1539, train\_acc:92.2044, val\_acc:94.5600, test\_acc:88.3500, sparsity:66.8386

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.14443201112384668

Epoch: 0, train\_acc: 91.5978, val\_acc: 94.3400, sparsity: 66.0233

11 trials: score: 0.1585, train\_acc:91.5978, val\_acc:94.3400, test\_acc:87.7700, sparsity:66.0233

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.14443201112384668

Epoch: 0, train\_acc: 90.4511, val\_acc: 93.2200, sparsity: 65.4194

12 trials: score: 0.1715, train\_acc:90.4511, val\_acc:93.2200, test\_acc:87.1500, sparsity:65.4194

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.14443201112384668

Epoch: 0, train\_acc: 91.9178, val\_acc: 94.1600, sparsity: 67.3181

13 trials: score: 0.1564, train\_acc:91.9178, val\_acc:94.1600, test\_acc:88.0500, sparsity:67.3181

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.14443201112384668

Epoch: 0, train\_acc: 92.7689, val\_acc: 95.0400, sparsity: 66.6444

14 trials: score: 0.1497, train\_acc:92.7689, val\_acc:95.0400, test\_acc:88.4800, sparsity:66.6444

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.14443201112384668

Epoch: 0, train\_acc: 89.1422, val\_acc: 92.3200, sparsity: 72.1488

Epoch: 1, train\_acc: 90.1756, val\_acc: 91.5000, sparsity: 72.1488

Epoch: 2, train\_acc: 91.8844, val\_acc: 90.9600, sparsity: 72.1488

Epoch: 3, train\_acc: 92.7756, val\_acc: 91.9400, sparsity: 72.1488

Epoch: 4, train\_acc: 93.3822, val\_acc: 92.6200, sparsity: 72.1488

Epoch: 5, train\_acc: 95.8622, val\_acc: 94.3400, sparsity: 72.1488

Epoch: 6, train\_acc: 96.0689, val\_acc: 94.8200, sparsity: 72.1488

Epoch: 7, train\_acc: 96.3422, val\_acc: 94.9200, sparsity: 72.1488

Epoch: 8, train\_acc: 96.5978, val\_acc: 94.6800, sparsity: 72.1488

Epoch: 9, train\_acc: 96.7178, val\_acc: 94.6400, sparsity: 72.1488

Epoch: 10, train\_acc: 96.6911, val\_acc: 95.3000, sparsity: 72.1488

Epoch: 11, train\_acc: 96.7422, val\_acc: 95.6200, sparsity: 72.1488

Epoch: 12, train\_acc: 97.0067, val\_acc: 95.0600, sparsity: 72.1488

Epoch: 13, train\_acc: 97.1244, val\_acc: 95.7200, sparsity: 72.1488

Epoch: 14, train\_acc: 97.2578, val\_acc: 95.3800, sparsity: 72.1488

Epoch: 15, train\_acc: 98.0733, val\_acc: 95.4600, sparsity: 72.1488

Epoch: 16, train\_acc: 98.1756, val\_acc: 96.2200, sparsity: 72.1488

Epoch: 17, train\_acc: 98.1378, val\_acc: 96.0400, sparsity: 72.1488

Epoch: 18, train\_acc: 98.2711, val\_acc: 96.2000, sparsity: 72.1488

Epoch: 19, train\_acc: 98.3978, val\_acc: 96.0200, sparsity: 72.1488

Epoch: 20, train\_acc: 98.4089, val\_acc: 95.7400, sparsity: 72.1488

Epoch: 21, train\_acc: 98.4244, val\_acc: 96.2000, sparsity: 72.1488

Epoch: 22, train\_acc: 98.7978, val\_acc: 96.4600, sparsity: 72.1488

Epoch: 23, train\_acc: 98.8133, val\_acc: 96.3400, sparsity: 72.1488

Epoch: 24, train\_acc: 98.8311, val\_acc: 95.8400, sparsity: 72.1488

Epoch: 25, train\_acc: 98.8822, val\_acc: 96.3400, sparsity: 72.1488

Epoch: 26, train\_acc: 98.9000, val\_acc: 96.8400, sparsity: 72.1488

Epoch: 27, train\_acc: 98.9156, val\_acc: 96.5600, sparsity: 72.1488

Epoch: 28, train\_acc: 98.9289, val\_acc: 96.5200, sparsity: 72.1488

Epoch: 29, train\_acc: 98.9000, val\_acc: 96.6000, sparsity: 72.1488

15 trials: score: 0.1152, train\_acc:98.9000, val\_acc:96.6000, test\_acc:90.3800, sparsity:72.1488

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.11515357109303061

Epoch: 0, train\_acc: 91.4178, val\_acc: 92.5400, sparsity: 62.2461

16 trials: score: 0.1879, train\_acc:91.4178, val\_acc:92.5400, test\_acc:87.0300, sparsity:62.2461

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.11515357109303061

Epoch: 0, train\_acc: 92.5511, val\_acc: 94.7200, sparsity: 65.7879

17 trials: score: 0.1554, train\_acc:92.5511, val\_acc:94.7200, test\_acc:88.1800, sparsity:65.7879

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.11515357109303061

Epoch: 0, train\_acc: 87.6978, val\_acc: 91.5800, sparsity: 67.9245

Epoch: 1, train\_acc: 88.7622, val\_acc: 89.1000, sparsity: 67.9245

Epoch: 2, train\_acc: 91.2733, val\_acc: 88.6600, sparsity: 67.9245

Epoch: 3, train\_acc: 92.3156, val\_acc: 91.0600, sparsity: 67.9245

Epoch: 4, train\_acc: 92.9733, val\_acc: 93.2000, sparsity: 67.9245

Epoch: 5, train\_acc: 95.1022, val\_acc: 93.7600, sparsity: 67.9245

Epoch: 6, train\_acc: 95.5200, val\_acc: 94.0800, sparsity: 67.9245

Epoch: 7, train\_acc: 95.7867, val\_acc: 94.7800, sparsity: 67.9245

Epoch: 8, train\_acc: 95.9289, val\_acc: 94.2800, sparsity: 67.9245

Epoch: 9, train\_acc: 96.4222, val\_acc: 95.0000, sparsity: 67.9245

Epoch: 10, train\_acc: 96.4289, val\_acc: 94.7600, sparsity: 67.9245

Epoch: 11, train\_acc: 96.7733, val\_acc: 94.7400, sparsity: 67.9245

Epoch: 12, train\_acc: 96.6178, val\_acc: 95.1800, sparsity: 67.9245

Epoch: 13, train\_acc: 96.6489, val\_acc: 95.3200, sparsity: 67.9245

Epoch: 14, train\_acc: 96.8978, val\_acc: 94.3000, sparsity: 67.9245

Epoch: 15, train\_acc: 97.7067, val\_acc: 95.1200, sparsity: 67.9245

Epoch: 16, train\_acc: 97.8978, val\_acc: 94.5000, sparsity: 67.9245

Epoch: 17, train\_acc: 98.0289, val\_acc: 95.3600, sparsity: 67.9245

Epoch: 18, train\_acc: 97.9956, val\_acc: 95.3800, sparsity: 67.9245

Epoch: 19, train\_acc: 98.1156, val\_acc: 94.9600, sparsity: 67.9245

Epoch: 20, train\_acc: 98.0356, val\_acc: 96.1000, sparsity: 67.9245

Epoch: 21, train\_acc: 98.1089, val\_acc: 95.8000, sparsity: 67.9245

Epoch: 22, train\_acc: 98.6133, val\_acc: 95.6800, sparsity: 67.9245

Epoch: 23, train\_acc: 98.6578, val\_acc: 95.7000, sparsity: 67.9245

Epoch: 24, train\_acc: 98.6733, val\_acc: 95.9200, sparsity: 67.9245

Epoch: 25, train\_acc: 98.7422, val\_acc: 96.2200, sparsity: 67.9245

Epoch: 26, train\_acc: 98.7733, val\_acc: 96.0400, sparsity: 67.9245

Epoch: 27, train\_acc: 98.7333, val\_acc: 96.0000, sparsity: 67.9245

Epoch: 28, train\_acc: 98.8133, val\_acc: 96.0000, sparsity: 67.9245

Epoch: 29, train\_acc: 98.8422, val\_acc: 95.8800, sparsity: 67.9245

18 trials: score: 0.1340, train\_acc:98.8422, val\_acc:95.8800, test\_acc:89.8200, sparsity:67.9245

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.11515357109303061

Epoch: 0, train\_acc: 91.4289, val\_acc: 94.5800, sparsity: 61.0408

19 trials: score: 0.1711, train\_acc:91.4289, val\_acc:94.5800, test\_acc:88.4100, sparsity:61.0408

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.11515357109303061

Epoch: 0, train\_acc: 92.8156, val\_acc: 94.8800, sparsity: 64.5942

20 trials: score: 0.1574, train\_acc:92.8156, val\_acc:94.8800, test\_acc:88.8300, sparsity:64.5942

{'module.layer2.4.conv2.weight': 0.3275458810525381, 'module.layer3.2.conv2.weight': 0.6012570451895699, 'module.layer3.5.conv1.weight': 0.48321767235278656, 'module.layer2.0.conv1.weight': 0.9419258885220032, 'module.layer1.0.conv1.weight': 0.3267965063412874, 'module.layer1.5.conv2.weight': 0.4340461492744584, 'module.layer1.8.conv2.weight': 0.355737348044877, 'module.layer1.6.conv2.weight': 0.7832116799100424, 'module.layer2.3.conv1.weight': 0.8510186657934731, 'module.layer2.3.conv2.weight': 0.33690094308180163, 'module.layer3.1.conv1.weight': 0.7993994405997616, 'module.layer2.7.conv1.weight': 0.5486289408876792, 'module.layer1.8.conv1.weight': 0.5008309301536866, 'module.layer1.4.conv2.weight': 0.5807594931772186, 'module.layer2.2.conv2.weight': 0.6235928305547547, 'module.layer2.1.conv2.weight': 0.7324139196708481, 'module.layer3.8.conv2.weight': 0.7308004289324195, 'module.layer1.4.conv1.weight': 0.6840853230940243, 'module.layer3.6.conv1.weight': 0.3138369806440558, 'module.layer1.6.conv1.weight': 0.6757297597036718, 'module.layer2.5.conv1.weight': 0.7559125375824662, 'module.layer2.4.conv1.weight': 0.6099438631362277, 'module.layer2.1.conv1.weight': 0.7185465903156161, 'module.layer2.6.conv2.weight': 0.8589827449696157, 'module.layer2.7.conv2.weight': 0.346923473882068, 'module.layer1.7.conv1.weight': 0.9357083948292273, 'module.layer3.3.conv2.weight': 0.8553165575508499, 'module.layer1.3.conv2.weight': 0.4054845789592482, 'module.layer1.3.conv1.weight': 0.660027847705321, 'module.layer3.0.conv2.weight': 0.8333177731910166, 'module.layer3.1.conv2.weight': 0.6210544406731153, 'module.layer2.2.conv1.weight': 0.6177016869951966, 'module.layer3.7.conv2.weight': 0.8255709755646721, 'module.layer2.0.conv2.weight': 0.4552809074354387, 'module.layer1.1.conv2.weight': 0.4895996253478576, 'module.conv1.weight': 0.9069577859298623, 'module.layer3.4.conv2.weight': 0.7343530165906951, 'module.layer1.2.conv2.weight': 0.7753496342470143, 'module.layer3.7.conv1.weight': 0.9093278678470615, 'module.layer1.0.conv2.weight': 0.8463988610182474, 'module.layer1.7.conv2.weight': 0.401720611171903, 'module.layer3.2.conv1.weight': 0.5685515430267651, 'module.layer2.8.conv2.weight': 0.9552000891477541, 'module.layer3.8.conv1.weight': 0.9479506353272187, 'module.layer3.0.conv1.weight': 0.7505674838993694, 'module.layer3.4.conv1.weight': 0.7652165577457911, 'module.layer3.3.conv1.weight': 0.9551314513866374, 'module.layer2.8.conv1.weight': 0.9795532389735322, 'module.layer1.1.conv1.weight': 0.8453383441743103, 'module.layer1.2.conv1.weight': 0.34359847228880014, 'module.layer3.6.conv2.weight': 0.9838177086599083, 'module.layer3.5.conv2.weight': 0.9405866148362485, 'module.layer1.5.conv1.weight': 0.7926324107404431, 'module.layer2.6.conv1.weight': 0.44706821932449897, 'module.layer2.5.conv2.weight': 0.30021615060854245}

Random, no constraint

(venv) root@ccma-X7Y7:/home/ccma/Chilung/1022/distiller/examples/lab4\_2# python auto.py --arch resnet56\_cifar --gpus=0 --lr=0.003 ../../../data.cifar10 -b=128 -j=1 --deterministic --resume='./pertrain base line/2018.11.08-213504/best.pth.tar' --rounds=20 --epochs=30

Files already downloaded and verified

Files already downloaded and verified

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

10.0

Epoch: 0, train\_acc: 90.3289, val\_acc: 93.0400, sparsity: 63.4339

Epoch: 1, train\_acc: 91.5844, val\_acc: 92.1400, sparsity: 63.4339

Epoch: 2, train\_acc: 92.9000, val\_acc: 93.0400, sparsity: 63.4339

Epoch: 3, train\_acc: 94.1511, val\_acc: 93.7800, sparsity: 63.4339

Epoch: 4, train\_acc: 94.8244, val\_acc: 93.6800, sparsity: 63.4339

Epoch: 5, train\_acc: 96.8578, val\_acc: 95.9200, sparsity: 63.4339

Epoch: 6, train\_acc: 97.0444, val\_acc: 95.9600, sparsity: 63.4339

Epoch: 7, train\_acc: 97.1400, val\_acc: 95.4600, sparsity: 63.4339

Epoch: 8, train\_acc: 97.3578, val\_acc: 96.0200, sparsity: 63.4339

Epoch: 9, train\_acc: 97.3689, val\_acc: 96.0200, sparsity: 63.4339

Epoch: 10, train\_acc: 97.5956, val\_acc: 95.2200, sparsity: 63.4339

Epoch: 11, train\_acc: 97.5356, val\_acc: 96.4200, sparsity: 63.4339

Epoch: 12, train\_acc: 97.8022, val\_acc: 95.9200, sparsity: 63.4339

Epoch: 13, train\_acc: 97.7311, val\_acc: 96.1600, sparsity: 63.4339

Epoch: 14, train\_acc: 97.8044, val\_acc: 96.6200, sparsity: 63.4339

Epoch: 15, train\_acc: 98.6644, val\_acc: 96.7800, sparsity: 63.4339

Epoch: 16, train\_acc: 98.7333, val\_acc: 96.8000, sparsity: 63.4339

Epoch: 17, train\_acc: 98.7511, val\_acc: 96.9800, sparsity: 63.4339

Epoch: 18, train\_acc: 98.8289, val\_acc: 96.9200, sparsity: 63.4339

Epoch: 19, train\_acc: 98.9711, val\_acc: 96.8200, sparsity: 63.4339

Epoch: 20, train\_acc: 98.8622, val\_acc: 97.0000, sparsity: 63.4339

Epoch: 21, train\_acc: 99.0133, val\_acc: 96.3400, sparsity: 63.4339

Epoch: 22, train\_acc: 99.0733, val\_acc: 97.3800, sparsity: 63.4339

Epoch: 23, train\_acc: 99.2689, val\_acc: 97.2200, sparsity: 63.4339

Epoch: 24, train\_acc: 99.2622, val\_acc: 97.0000, sparsity: 63.4339

Epoch: 25, train\_acc: 99.3022, val\_acc: 97.6800, sparsity: 63.4339

Epoch: 26, train\_acc: 99.3267, val\_acc: 97.4200, sparsity: 63.4339

Epoch: 27, train\_acc: 99.2622, val\_acc: 97.5400, sparsity: 63.4339

Epoch: 28, train\_acc: 99.3244, val\_acc: 97.1000, sparsity: 63.4339

Epoch: 29, train\_acc: 99.2178, val\_acc: 97.5400, sparsity: 63.4339

1 trials: score: 0.1329, train\_acc:99.2178, val\_acc:97.5400, test\_acc:90.3700, sparsity:63.4339

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.13289836900355123

Epoch: 0, train\_acc: 89.1533, val\_acc: 92.6400, sparsity: 63.6942

Epoch: 1, train\_acc: 90.7311, val\_acc: 91.2600, sparsity: 63.6942

Epoch: 2, train\_acc: 92.5178, val\_acc: 92.2000, sparsity: 63.6942

Epoch: 3, train\_acc: 93.3311, val\_acc: 92.2800, sparsity: 63.6942

Epoch: 4, train\_acc: 94.3600, val\_acc: 92.5800, sparsity: 63.6942

Epoch: 5, train\_acc: 96.2222, val\_acc: 95.0800, sparsity: 63.6942

Epoch: 6, train\_acc: 96.5244, val\_acc: 93.2400, sparsity: 63.6942

Epoch: 7, train\_acc: 96.5200, val\_acc: 95.1200, sparsity: 63.6942

Epoch: 8, train\_acc: 97.0089, val\_acc: 95.0800, sparsity: 63.6942

Epoch: 9, train\_acc: 97.0333, val\_acc: 95.0600, sparsity: 63.6942

Epoch: 10, train\_acc: 97.1067, val\_acc: 95.0400, sparsity: 63.6942

Epoch: 11, train\_acc: 97.1467, val\_acc: 95.0400, sparsity: 63.6942

Epoch: 12, train\_acc: 97.4844, val\_acc: 95.4400, sparsity: 63.6942

Epoch: 13, train\_acc: 97.4822, val\_acc: 94.4400, sparsity: 63.6942

Epoch: 14, train\_acc: 97.5511, val\_acc: 94.4800, sparsity: 63.6942

Epoch: 15, train\_acc: 98.3933, val\_acc: 95.6600, sparsity: 63.6942

Epoch: 16, train\_acc: 98.4311, val\_acc: 95.7400, sparsity: 63.6942

Epoch: 17, train\_acc: 98.5400, val\_acc: 95.9800, sparsity: 63.6942

Epoch: 18, train\_acc: 98.5467, val\_acc: 96.4200, sparsity: 63.6942

Epoch: 19, train\_acc: 98.7089, val\_acc: 96.4200, sparsity: 63.6942

Epoch: 20, train\_acc: 98.6800, val\_acc: 96.3600, sparsity: 63.6942

Epoch: 21, train\_acc: 98.7044, val\_acc: 96.1400, sparsity: 63.6942

Epoch: 22, train\_acc: 99.0533, val\_acc: 96.3400, sparsity: 63.6942

Epoch: 23, train\_acc: 98.9867, val\_acc: 96.5800, sparsity: 63.6942

Epoch: 24, train\_acc: 99.1111, val\_acc: 96.6000, sparsity: 63.6942

Epoch: 25, train\_acc: 99.0978, val\_acc: 96.7400, sparsity: 63.6942

Epoch: 26, train\_acc: 99.2000, val\_acc: 96.9000, sparsity: 63.6942

Epoch: 27, train\_acc: 99.2222, val\_acc: 96.7200, sparsity: 63.6942

Epoch: 28, train\_acc: 99.1622, val\_acc: 96.9200, sparsity: 63.6942

Epoch: 29, train\_acc: 99.2000, val\_acc: 96.9200, sparsity: 63.6942

2 trials: score: 0.1397, train\_acc:99.2000, val\_acc:96.9200, test\_acc:90.0700, sparsity:63.6942

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.13289836900355123

Epoch: 0, train\_acc: 90.2022, val\_acc: 93.5800, sparsity: 61.5247

Epoch: 1, train\_acc: 90.9689, val\_acc: 91.6600, sparsity: 61.5247

Epoch: 2, train\_acc: 92.7267, val\_acc: 92.5400, sparsity: 61.5247

Epoch: 3, train\_acc: 93.6711, val\_acc: 92.7200, sparsity: 61.5247

Epoch: 4, train\_acc: 94.2289, val\_acc: 94.1000, sparsity: 61.5247

Epoch: 5, train\_acc: 96.5422, val\_acc: 95.4800, sparsity: 61.5247

Epoch: 6, train\_acc: 96.9000, val\_acc: 95.8000, sparsity: 61.5247

Epoch: 7, train\_acc: 97.0578, val\_acc: 95.8600, sparsity: 61.5247

Epoch: 8, train\_acc: 97.3044, val\_acc: 96.3200, sparsity: 61.5247

Epoch: 9, train\_acc: 97.1867, val\_acc: 95.4600, sparsity: 61.5247

Epoch: 10, train\_acc: 97.3956, val\_acc: 96.3000, sparsity: 61.5247

Epoch: 11, train\_acc: 97.7067, val\_acc: 95.5200, sparsity: 61.5247

Epoch: 12, train\_acc: 97.6200, val\_acc: 96.4200, sparsity: 61.5247

Epoch: 13, train\_acc: 97.6200, val\_acc: 96.3200, sparsity: 61.5247

Epoch: 14, train\_acc: 97.7356, val\_acc: 95.4000, sparsity: 61.5247

Epoch: 15, train\_acc: 98.5600, val\_acc: 97.0600, sparsity: 61.5247

Epoch: 16, train\_acc: 98.6111, val\_acc: 96.8800, sparsity: 61.5247

Epoch: 17, train\_acc: 98.6600, val\_acc: 96.8600, sparsity: 61.5247

Epoch: 18, train\_acc: 98.7178, val\_acc: 96.8400, sparsity: 61.5247

Epoch: 19, train\_acc: 98.8400, val\_acc: 96.8400, sparsity: 61.5247

Epoch: 20, train\_acc: 98.8089, val\_acc: 97.0200, sparsity: 61.5247

Epoch: 21, train\_acc: 98.8911, val\_acc: 96.7800, sparsity: 61.5247

Epoch: 22, train\_acc: 99.1400, val\_acc: 97.3600, sparsity: 61.5247

Epoch: 23, train\_acc: 99.2111, val\_acc: 97.6400, sparsity: 61.5247

Epoch: 24, train\_acc: 99.1956, val\_acc: 97.3600, sparsity: 61.5247

Epoch: 25, train\_acc: 99.3000, val\_acc: 97.1800, sparsity: 61.5247

Epoch: 26, train\_acc: 99.2644, val\_acc: 97.3600, sparsity: 61.5247

Epoch: 27, train\_acc: 99.2400, val\_acc: 97.0000, sparsity: 61.5247

Epoch: 28, train\_acc: 99.2844, val\_acc: 97.5400, sparsity: 61.5247

Epoch: 29, train\_acc: 99.2111, val\_acc: 97.5600, sparsity: 61.5247

3 trials: score: 0.1390, train\_acc:99.2111, val\_acc:97.5600, test\_acc:90.0100, sparsity:61.5247

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.13289836900355123

Epoch: 0, train\_acc: 87.8200, val\_acc: 90.7800, sparsity: 65.9488

Epoch: 1, train\_acc: 89.6311, val\_acc: 90.9600, sparsity: 65.9488

Epoch: 2, train\_acc: 91.0644, val\_acc: 91.7800, sparsity: 65.9488

Epoch: 3, train\_acc: 92.1133, val\_acc: 90.5000, sparsity: 65.9488

Epoch: 4, train\_acc: 92.7800, val\_acc: 91.9600, sparsity: 65.9488

Epoch: 5, train\_acc: 95.1689, val\_acc: 93.5000, sparsity: 65.9488

Epoch: 6, train\_acc: 95.4756, val\_acc: 93.7800, sparsity: 65.9488

Epoch: 7, train\_acc: 95.6222, val\_acc: 93.9600, sparsity: 65.9488

Epoch: 8, train\_acc: 95.9378, val\_acc: 94.1000, sparsity: 65.9488

Epoch: 9, train\_acc: 96.0978, val\_acc: 94.3400, sparsity: 65.9488

Epoch: 10, train\_acc: 96.1556, val\_acc: 94.3600, sparsity: 65.9488

Epoch: 11, train\_acc: 96.2511, val\_acc: 94.4000, sparsity: 65.9488

Epoch: 12, train\_acc: 96.4933, val\_acc: 94.1000, sparsity: 65.9488

Epoch: 13, train\_acc: 96.5822, val\_acc: 94.4200, sparsity: 65.9488

Epoch: 14, train\_acc: 96.5489, val\_acc: 94.4000, sparsity: 65.9488

Epoch: 15, train\_acc: 97.6822, val\_acc: 95.1000, sparsity: 65.9488

Epoch: 16, train\_acc: 97.7978, val\_acc: 95.5400, sparsity: 65.9488

Epoch: 17, train\_acc: 97.8467, val\_acc: 95.4000, sparsity: 65.9488

Epoch: 18, train\_acc: 97.7711, val\_acc: 95.0800, sparsity: 65.9488

Epoch: 19, train\_acc: 97.9822, val\_acc: 94.9000, sparsity: 65.9488

Epoch: 20, train\_acc: 98.0556, val\_acc: 94.8200, sparsity: 65.9488

Epoch: 21, train\_acc: 98.0689, val\_acc: 95.2400, sparsity: 65.9488

Epoch: 22, train\_acc: 98.3778, val\_acc: 95.4600, sparsity: 65.9488

Epoch: 23, train\_acc: 98.4289, val\_acc: 95.9400, sparsity: 65.9488

Epoch: 24, train\_acc: 98.5622, val\_acc: 95.7400, sparsity: 65.9488

Epoch: 25, train\_acc: 98.6489, val\_acc: 95.8400, sparsity: 65.9488

Epoch: 26, train\_acc: 98.6333, val\_acc: 95.4600, sparsity: 65.9488

Epoch: 27, train\_acc: 98.5556, val\_acc: 95.5800, sparsity: 65.9488

Epoch: 28, train\_acc: 98.7044, val\_acc: 95.7000, sparsity: 65.9488

Epoch: 29, train\_acc: 98.5911, val\_acc: 95.2600, sparsity: 65.9488

4 trials: score: 0.1428, train\_acc:98.5911, val\_acc:95.2600, test\_acc:90.0000, sparsity:65.9488

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.13289836900355123

Epoch: 0, train\_acc: 87.9222, val\_acc: 92.6400, sparsity: 67.9112

Epoch: 1, train\_acc: 89.1356, val\_acc: 91.1600, sparsity: 67.9112

Epoch: 2, train\_acc: 91.6822, val\_acc: 90.5800, sparsity: 67.9112

Epoch: 3, train\_acc: 92.5178, val\_acc: 91.7200, sparsity: 67.9112

Epoch: 4, train\_acc: 93.2289, val\_acc: 91.8000, sparsity: 67.9112

Epoch: 5, train\_acc: 95.3733, val\_acc: 94.3800, sparsity: 67.9112

Epoch: 6, train\_acc: 95.9267, val\_acc: 93.9000, sparsity: 67.9112

Epoch: 7, train\_acc: 96.0444, val\_acc: 95.1800, sparsity: 67.9112

Epoch: 8, train\_acc: 96.3800, val\_acc: 94.2400, sparsity: 67.9112

Epoch: 9, train\_acc: 96.2511, val\_acc: 94.5800, sparsity: 67.9112

Epoch: 10, train\_acc: 96.5200, val\_acc: 95.0000, sparsity: 67.9112

Epoch: 11, train\_acc: 96.5244, val\_acc: 94.5000, sparsity: 67.9112

Epoch: 12, train\_acc: 96.4822, val\_acc: 94.4200, sparsity: 67.9112

Epoch: 13, train\_acc: 96.7978, val\_acc: 94.0200, sparsity: 67.9112

Epoch: 14, train\_acc: 97.0889, val\_acc: 94.6800, sparsity: 67.9112

Epoch: 15, train\_acc: 97.8800, val\_acc: 95.4600, sparsity: 67.9112

Epoch: 16, train\_acc: 97.9556, val\_acc: 95.4000, sparsity: 67.9112

Epoch: 17, train\_acc: 98.0467, val\_acc: 95.8400, sparsity: 67.9112

Epoch: 18, train\_acc: 98.0133, val\_acc: 95.7000, sparsity: 67.9112

Epoch: 19, train\_acc: 98.0800, val\_acc: 95.2000, sparsity: 67.9112

Epoch: 20, train\_acc: 98.0178, val\_acc: 95.9600, sparsity: 67.9112

Epoch: 21, train\_acc: 98.2467, val\_acc: 95.8800, sparsity: 67.9112

Epoch: 22, train\_acc: 98.5956, val\_acc: 95.9000, sparsity: 67.9112

Epoch: 23, train\_acc: 98.7422, val\_acc: 95.7600, sparsity: 67.9112

Epoch: 24, train\_acc: 98.7156, val\_acc: 96.3000, sparsity: 67.9112

Epoch: 25, train\_acc: 98.7622, val\_acc: 96.1800, sparsity: 67.9112

Epoch: 26, train\_acc: 98.7778, val\_acc: 95.8600, sparsity: 67.9112

Epoch: 27, train\_acc: 98.6867, val\_acc: 96.0000, sparsity: 67.9112

Epoch: 28, train\_acc: 98.7289, val\_acc: 95.8600, sparsity: 67.9112

Epoch: 29, train\_acc: 98.7778, val\_acc: 96.1600, sparsity: 67.9112

5 trials: score: 0.1333, train\_acc:98.7778, val\_acc:96.1600, test\_acc:90.1200, sparsity:67.9112

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.13289836900355123

Epoch: 0, train\_acc: 92.4311, val\_acc: 94.9800, sparsity: 63.3144

Epoch: 1, train\_acc: 92.9733, val\_acc: 90.6800, sparsity: 63.3144

Epoch: 2, train\_acc: 94.1200, val\_acc: 93.5800, sparsity: 63.3144

Epoch: 3, train\_acc: 94.8556, val\_acc: 95.1800, sparsity: 63.3144

Epoch: 4, train\_acc: 95.3489, val\_acc: 95.7000, sparsity: 63.3144

Epoch: 5, train\_acc: 97.3578, val\_acc: 96.3400, sparsity: 63.3144

Epoch: 6, train\_acc: 97.7667, val\_acc: 96.5200, sparsity: 63.3144

Epoch: 7, train\_acc: 97.7689, val\_acc: 96.4800, sparsity: 63.3144

Epoch: 8, train\_acc: 97.8978, val\_acc: 95.7400, sparsity: 63.3144

Epoch: 9, train\_acc: 97.8244, val\_acc: 96.9000, sparsity: 63.3144

Epoch: 10, train\_acc: 98.2111, val\_acc: 96.5600, sparsity: 63.3144

Epoch: 11, train\_acc: 98.1178, val\_acc: 96.8800, sparsity: 63.3144

Epoch: 12, train\_acc: 98.2556, val\_acc: 96.9400, sparsity: 63.3144

Epoch: 13, train\_acc: 98.2044, val\_acc: 96.8600, sparsity: 63.3144

Epoch: 14, train\_acc: 98.3044, val\_acc: 96.6200, sparsity: 63.3144

Epoch: 15, train\_acc: 99.0400, val\_acc: 97.2400, sparsity: 63.3144

Epoch: 16, train\_acc: 99.1511, val\_acc: 97.6200, sparsity: 63.3144

Epoch: 17, train\_acc: 99.1556, val\_acc: 97.5200, sparsity: 63.3144

Epoch: 18, train\_acc: 99.2133, val\_acc: 97.8200, sparsity: 63.3144

Epoch: 19, train\_acc: 99.1467, val\_acc: 96.9800, sparsity: 63.3144

Epoch: 20, train\_acc: 99.2600, val\_acc: 97.8400, sparsity: 63.3144

Epoch: 21, train\_acc: 99.1489, val\_acc: 97.3400, sparsity: 63.3144

Epoch: 22, train\_acc: 99.4444, val\_acc: 98.0200, sparsity: 63.3144

Epoch: 23, train\_acc: 99.5200, val\_acc: 98.1000, sparsity: 63.3144

Epoch: 24, train\_acc: 99.5044, val\_acc: 97.8200, sparsity: 63.3144

Epoch: 25, train\_acc: 99.5467, val\_acc: 97.7200, sparsity: 63.3144

Epoch: 26, train\_acc: 99.5844, val\_acc: 97.9800, sparsity: 63.3144

Epoch: 27, train\_acc: 99.5000, val\_acc: 97.9400, sparsity: 63.3144

Epoch: 28, train\_acc: 99.5711, val\_acc: 97.7400, sparsity: 63.3144

Epoch: 29, train\_acc: 99.5467, val\_acc: 97.8800, sparsity: 63.3144

6 trials: score: 0.1291, train\_acc:99.5467, val\_acc:97.8800, test\_acc:90.7800, sparsity:63.3144

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12905667618707606

Epoch: 0, train\_acc: 92.0311, val\_acc: 95.1400, sparsity: 62.8851

Epoch: 1, train\_acc: 92.8089, val\_acc: 92.8200, sparsity: 62.8851

Epoch: 2, train\_acc: 93.7756, val\_acc: 93.3400, sparsity: 62.8851

Epoch: 3, train\_acc: 94.4978, val\_acc: 92.6000, sparsity: 62.8851

Epoch: 4, train\_acc: 95.2600, val\_acc: 91.7800, sparsity: 62.8851

Epoch: 5, train\_acc: 97.2156, val\_acc: 96.6200, sparsity: 62.8851

Epoch: 6, train\_acc: 97.3244, val\_acc: 96.2800, sparsity: 62.8851

Epoch: 7, train\_acc: 97.7244, val\_acc: 95.9200, sparsity: 62.8851

Epoch: 8, train\_acc: 97.7044, val\_acc: 96.4800, sparsity: 62.8851

Epoch: 9, train\_acc: 98.1311, val\_acc: 96.2800, sparsity: 62.8851

Epoch: 10, train\_acc: 98.0022, val\_acc: 97.0600, sparsity: 62.8851

Epoch: 11, train\_acc: 98.1667, val\_acc: 96.8200, sparsity: 62.8851

Epoch: 12, train\_acc: 98.2489, val\_acc: 96.3000, sparsity: 62.8851

Epoch: 13, train\_acc: 98.1733, val\_acc: 96.4400, sparsity: 62.8851

Epoch: 14, train\_acc: 98.2867, val\_acc: 96.8200, sparsity: 62.8851

Epoch: 15, train\_acc: 98.9911, val\_acc: 97.5000, sparsity: 62.8851

Epoch: 16, train\_acc: 99.1489, val\_acc: 97.1800, sparsity: 62.8851

Epoch: 17, train\_acc: 99.0467, val\_acc: 97.3600, sparsity: 62.8851

Epoch: 18, train\_acc: 99.2422, val\_acc: 97.4600, sparsity: 62.8851

Epoch: 19, train\_acc: 99.0311, val\_acc: 97.3600, sparsity: 62.8851

Epoch: 20, train\_acc: 99.0556, val\_acc: 97.2200, sparsity: 62.8851

Epoch: 21, train\_acc: 99.3444, val\_acc: 97.5200, sparsity: 62.8851

Epoch: 22, train\_acc: 99.4889, val\_acc: 97.6600, sparsity: 62.8851

Epoch: 23, train\_acc: 99.4289, val\_acc: 97.6800, sparsity: 62.8851

Epoch: 24, train\_acc: 99.5067, val\_acc: 97.5400, sparsity: 62.8851

Epoch: 25, train\_acc: 99.4956, val\_acc: 97.8000, sparsity: 62.8851

Epoch: 26, train\_acc: 99.4867, val\_acc: 97.8800, sparsity: 62.8851

Epoch: 27, train\_acc: 99.4822, val\_acc: 97.9800, sparsity: 62.8851

Epoch: 28, train\_acc: 99.5733, val\_acc: 97.7200, sparsity: 62.8851

Epoch: 29, train\_acc: 99.5200, val\_acc: 97.8000, sparsity: 62.8851

7 trials: score: 0.1315, train\_acc:99.5200, val\_acc:97.8000, test\_acc:90.5300, sparsity:62.8851

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12905667618707606

Epoch: 0, train\_acc: 89.6511, val\_acc: 94.2600, sparsity: 57.4099

Epoch: 1, train\_acc: 91.5044, val\_acc: 92.5400, sparsity: 57.4099

Epoch: 2, train\_acc: 93.5111, val\_acc: 92.4000, sparsity: 57.4099

Epoch: 3, train\_acc: 94.1356, val\_acc: 92.5200, sparsity: 57.4099

Epoch: 4, train\_acc: 95.0956, val\_acc: 94.5000, sparsity: 57.4099

Epoch: 5, train\_acc: 97.3689, val\_acc: 96.5200, sparsity: 57.4099

Epoch: 6, train\_acc: 97.4911, val\_acc: 96.0200, sparsity: 57.4099

Epoch: 7, train\_acc: 97.5733, val\_acc: 95.8800, sparsity: 57.4099

Epoch: 8, train\_acc: 97.7511, val\_acc: 96.6600, sparsity: 57.4099

Epoch: 9, train\_acc: 97.7244, val\_acc: 96.7000, sparsity: 57.4099

Epoch: 10, train\_acc: 97.7911, val\_acc: 96.3000, sparsity: 57.4099

Epoch: 11, train\_acc: 98.0311, val\_acc: 96.7000, sparsity: 57.4099

Epoch: 12, train\_acc: 98.0089, val\_acc: 96.4600, sparsity: 57.4099

Epoch: 13, train\_acc: 98.1778, val\_acc: 96.7400, sparsity: 57.4099

Epoch: 14, train\_acc: 98.3844, val\_acc: 97.1600, sparsity: 57.4099

Epoch: 15, train\_acc: 98.9511, val\_acc: 97.5800, sparsity: 57.4099

Epoch: 16, train\_acc: 99.1000, val\_acc: 97.6200, sparsity: 57.4099

Epoch: 17, train\_acc: 99.1044, val\_acc: 97.1000, sparsity: 57.4099

Epoch: 18, train\_acc: 99.0911, val\_acc: 97.6000, sparsity: 57.4099

Epoch: 19, train\_acc: 99.1778, val\_acc: 97.1800, sparsity: 57.4099

Epoch: 20, train\_acc: 99.1622, val\_acc: 97.6400, sparsity: 57.4099

Epoch: 21, train\_acc: 99.2089, val\_acc: 97.9200, sparsity: 57.4099

Epoch: 22, train\_acc: 99.4067, val\_acc: 97.7800, sparsity: 57.4099

Epoch: 23, train\_acc: 99.4400, val\_acc: 97.7600, sparsity: 57.4099

Epoch: 24, train\_acc: 99.4578, val\_acc: 97.6800, sparsity: 57.4099

Epoch: 25, train\_acc: 99.5022, val\_acc: 97.9800, sparsity: 57.4099

Epoch: 26, train\_acc: 99.5800, val\_acc: 97.9600, sparsity: 57.4099

Epoch: 27, train\_acc: 99.5667, val\_acc: 98.0600, sparsity: 57.4099

Epoch: 28, train\_acc: 99.5289, val\_acc: 97.9800, sparsity: 57.4099

Epoch: 29, train\_acc: 99.5111, val\_acc: 98.2200, sparsity: 57.4099

8 trials: score: 0.1456, train\_acc:99.5111, val\_acc:98.2200, test\_acc:89.8900, sparsity:57.4099

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12905667618707606

Epoch: 0, train\_acc: 88.9733, val\_acc: 92.6800, sparsity: 67.1856

Epoch: 1, train\_acc: 90.0778, val\_acc: 91.0800, sparsity: 67.1856

Epoch: 2, train\_acc: 91.8578, val\_acc: 92.2800, sparsity: 67.1856

Epoch: 3, train\_acc: 93.0556, val\_acc: 91.5200, sparsity: 67.1856

Epoch: 4, train\_acc: 93.7044, val\_acc: 93.1200, sparsity: 67.1856

Epoch: 5, train\_acc: 95.6089, val\_acc: 94.6000, sparsity: 67.1856

Epoch: 6, train\_acc: 96.0844, val\_acc: 95.0800, sparsity: 67.1856

Epoch: 7, train\_acc: 96.3933, val\_acc: 94.9000, sparsity: 67.1856

Epoch: 8, train\_acc: 96.5667, val\_acc: 95.1000, sparsity: 67.1856

Epoch: 9, train\_acc: 96.7689, val\_acc: 95.1200, sparsity: 67.1856

Epoch: 10, train\_acc: 96.7489, val\_acc: 95.3400, sparsity: 67.1856

Epoch: 11, train\_acc: 97.0378, val\_acc: 94.5400, sparsity: 67.1856

Epoch: 12, train\_acc: 97.1267, val\_acc: 95.1800, sparsity: 67.1856

Epoch: 13, train\_acc: 97.2756, val\_acc: 94.2600, sparsity: 67.1856

Epoch: 14, train\_acc: 97.2133, val\_acc: 95.3200, sparsity: 67.1856

Epoch: 15, train\_acc: 98.0467, val\_acc: 95.3200, sparsity: 67.1856

Epoch: 16, train\_acc: 98.1622, val\_acc: 96.3800, sparsity: 67.1856

Epoch: 17, train\_acc: 98.2156, val\_acc: 96.2000, sparsity: 67.1856

Epoch: 18, train\_acc: 98.4422, val\_acc: 96.1600, sparsity: 67.1856

Epoch: 19, train\_acc: 98.4867, val\_acc: 96.2400, sparsity: 67.1856

Epoch: 20, train\_acc: 98.4311, val\_acc: 95.9800, sparsity: 67.1856

Epoch: 21, train\_acc: 98.4711, val\_acc: 96.2200, sparsity: 67.1856

Epoch: 22, train\_acc: 98.8222, val\_acc: 96.6000, sparsity: 67.1856

Epoch: 23, train\_acc: 98.9089, val\_acc: 96.3400, sparsity: 67.1856

Epoch: 24, train\_acc: 98.9222, val\_acc: 96.3400, sparsity: 67.1856

Epoch: 25, train\_acc: 98.9311, val\_acc: 96.3400, sparsity: 67.1856

Epoch: 26, train\_acc: 98.9778, val\_acc: 96.6000, sparsity: 67.1856

Epoch: 27, train\_acc: 98.9978, val\_acc: 96.4400, sparsity: 67.1856

Epoch: 28, train\_acc: 99.0111, val\_acc: 96.6000, sparsity: 67.1856

Epoch: 29, train\_acc: 99.0044, val\_acc: 96.9600, sparsity: 67.1856

9 trials: score: 0.1288, train\_acc:99.0044, val\_acc:96.9600, test\_acc:89.9700, sparsity:67.1856

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12884322516394528

Epoch: 0, train\_acc: 94.3133, val\_acc: 96.1200, sparsity: 62.0543

Epoch: 1, train\_acc: 93.1600, val\_acc: 94.1600, sparsity: 62.0543

Epoch: 2, train\_acc: 95.0089, val\_acc: 94.1400, sparsity: 62.0543

Epoch: 3, train\_acc: 94.9178, val\_acc: 94.6400, sparsity: 62.0543

Epoch: 4, train\_acc: 95.5133, val\_acc: 95.8600, sparsity: 62.0543

Epoch: 5, train\_acc: 97.6333, val\_acc: 96.4400, sparsity: 62.0543

Epoch: 6, train\_acc: 98.0867, val\_acc: 97.4800, sparsity: 62.0543

Epoch: 7, train\_acc: 98.1756, val\_acc: 96.7000, sparsity: 62.0543

Epoch: 8, train\_acc: 98.0600, val\_acc: 96.8800, sparsity: 62.0543

Epoch: 9, train\_acc: 98.2422, val\_acc: 97.4200, sparsity: 62.0543

Epoch: 10, train\_acc: 98.3467, val\_acc: 95.8600, sparsity: 62.0543

Epoch: 11, train\_acc: 98.3133, val\_acc: 96.8000, sparsity: 62.0543

Epoch: 12, train\_acc: 98.4200, val\_acc: 96.7800, sparsity: 62.0543

Epoch: 13, train\_acc: 98.5444, val\_acc: 96.7400, sparsity: 62.0543

Epoch: 14, train\_acc: 98.6511, val\_acc: 97.7400, sparsity: 62.0543

Epoch: 15, train\_acc: 99.1689, val\_acc: 97.8800, sparsity: 62.0543

Epoch: 16, train\_acc: 99.3067, val\_acc: 97.9200, sparsity: 62.0543

Epoch: 17, train\_acc: 99.3178, val\_acc: 97.7000, sparsity: 62.0543

Epoch: 18, train\_acc: 99.2867, val\_acc: 98.0800, sparsity: 62.0543

Epoch: 19, train\_acc: 99.3689, val\_acc: 97.9000, sparsity: 62.0543

Epoch: 20, train\_acc: 99.3667, val\_acc: 98.0800, sparsity: 62.0543

Epoch: 21, train\_acc: 99.4822, val\_acc: 97.9400, sparsity: 62.0543

Epoch: 22, train\_acc: 99.5400, val\_acc: 98.4600, sparsity: 62.0543

Epoch: 23, train\_acc: 99.6511, val\_acc: 97.9600, sparsity: 62.0543

Epoch: 24, train\_acc: 99.6067, val\_acc: 97.9400, sparsity: 62.0543

Epoch: 25, train\_acc: 99.6200, val\_acc: 98.4000, sparsity: 62.0543

Epoch: 26, train\_acc: 99.6556, val\_acc: 98.4600, sparsity: 62.0543

Epoch: 27, train\_acc: 99.7000, val\_acc: 98.2600, sparsity: 62.0543

Epoch: 28, train\_acc: 99.6311, val\_acc: 98.0800, sparsity: 62.0543

Epoch: 29, train\_acc: 99.6444, val\_acc: 98.2200, sparsity: 62.0543

10 trials: score: 0.1292, train\_acc:99.6444, val\_acc:98.2200, test\_acc:90.6200, sparsity:62.0543

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12884322516394528

Epoch: 0, train\_acc: 91.3578, val\_acc: 93.6400, sparsity: 68.3670

Epoch: 1, train\_acc: 92.0911, val\_acc: 92.6000, sparsity: 68.3670

Epoch: 2, train\_acc: 92.9556, val\_acc: 91.2400, sparsity: 68.3670

Epoch: 3, train\_acc: 93.7400, val\_acc: 92.7200, sparsity: 68.3670

Epoch: 4, train\_acc: 94.2711, val\_acc: 93.0800, sparsity: 68.3670

Epoch: 5, train\_acc: 96.5667, val\_acc: 95.2400, sparsity: 68.3670

Epoch: 6, train\_acc: 96.9667, val\_acc: 94.4800, sparsity: 68.3670

Epoch: 7, train\_acc: 96.8622, val\_acc: 95.6000, sparsity: 68.3670

Epoch: 8, train\_acc: 97.1756, val\_acc: 95.9800, sparsity: 68.3670

Epoch: 9, train\_acc: 97.2822, val\_acc: 93.9400, sparsity: 68.3670

Epoch: 10, train\_acc: 97.3933, val\_acc: 95.8600, sparsity: 68.3670

Epoch: 11, train\_acc: 97.6689, val\_acc: 95.4800, sparsity: 68.3670

Epoch: 12, train\_acc: 97.6733, val\_acc: 95.1800, sparsity: 68.3670

Epoch: 13, train\_acc: 97.6933, val\_acc: 95.3600, sparsity: 68.3670

Epoch: 14, train\_acc: 97.7356, val\_acc: 96.1200, sparsity: 68.3670

Epoch: 15, train\_acc: 98.6333, val\_acc: 96.8800, sparsity: 68.3670

Epoch: 16, train\_acc: 98.5711, val\_acc: 96.6600, sparsity: 68.3670

Epoch: 17, train\_acc: 98.7822, val\_acc: 96.5000, sparsity: 68.3670

Epoch: 18, train\_acc: 98.8244, val\_acc: 96.2000, sparsity: 68.3670

Epoch: 19, train\_acc: 98.6400, val\_acc: 95.8400, sparsity: 68.3670

Epoch: 20, train\_acc: 98.8200, val\_acc: 96.8800, sparsity: 68.3670

Epoch: 21, train\_acc: 98.7111, val\_acc: 96.7000, sparsity: 68.3670

Epoch: 22, train\_acc: 99.1200, val\_acc: 96.8800, sparsity: 68.3670

Epoch: 23, train\_acc: 99.2244, val\_acc: 97.2800, sparsity: 68.3670

Epoch: 24, train\_acc: 99.1933, val\_acc: 96.3800, sparsity: 68.3670

Epoch: 25, train\_acc: 99.2711, val\_acc: 96.8600, sparsity: 68.3670

Epoch: 26, train\_acc: 99.2867, val\_acc: 96.8200, sparsity: 68.3670

Epoch: 27, train\_acc: 99.2689, val\_acc: 97.0200, sparsity: 68.3670

Epoch: 28, train\_acc: 99.3044, val\_acc: 96.7800, sparsity: 68.3670

Epoch: 29, train\_acc: 99.2667, val\_acc: 97.1200, sparsity: 68.3670

11 trials: score: 0.1221, train\_acc:99.2667, val\_acc:97.1200, test\_acc:90.3000, sparsity:68.3670

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12209890828463517

Epoch: 0, train\_acc: 91.6756, val\_acc: 94.4200, sparsity: 62.3675

Epoch: 1, train\_acc: 92.4956, val\_acc: 93.9200, sparsity: 62.3675

Epoch: 2, train\_acc: 93.8667, val\_acc: 92.8200, sparsity: 62.3675

Epoch: 3, train\_acc: 94.5289, val\_acc: 94.3200, sparsity: 62.3675

Epoch: 4, train\_acc: 94.8489, val\_acc: 93.7400, sparsity: 62.3675

Epoch: 5, train\_acc: 97.0311, val\_acc: 96.2400, sparsity: 62.3675

Epoch: 6, train\_acc: 97.5000, val\_acc: 96.2400, sparsity: 62.3675

Epoch: 7, train\_acc: 97.4822, val\_acc: 96.6600, sparsity: 62.3675

Epoch: 8, train\_acc: 97.5356, val\_acc: 96.7000, sparsity: 62.3675

Epoch: 9, train\_acc: 97.8267, val\_acc: 96.6200, sparsity: 62.3675

Epoch: 10, train\_acc: 97.9467, val\_acc: 96.7600, sparsity: 62.3675

Epoch: 11, train\_acc: 97.9267, val\_acc: 95.5800, sparsity: 62.3675

Epoch: 12, train\_acc: 98.1000, val\_acc: 95.5800, sparsity: 62.3675

Epoch: 13, train\_acc: 98.0489, val\_acc: 96.1600, sparsity: 62.3675

Epoch: 14, train\_acc: 98.2200, val\_acc: 95.6800, sparsity: 62.3675

Epoch: 15, train\_acc: 98.8778, val\_acc: 97.3800, sparsity: 62.3675

Epoch: 16, train\_acc: 98.9622, val\_acc: 97.3200, sparsity: 62.3675

Epoch: 17, train\_acc: 99.0511, val\_acc: 97.0000, sparsity: 62.3675

Epoch: 18, train\_acc: 99.0800, val\_acc: 97.4800, sparsity: 62.3675

Epoch: 19, train\_acc: 99.0311, val\_acc: 96.5200, sparsity: 62.3675

Epoch: 20, train\_acc: 99.0044, val\_acc: 97.4200, sparsity: 62.3675

Epoch: 21, train\_acc: 99.1733, val\_acc: 97.1400, sparsity: 62.3675

Epoch: 22, train\_acc: 99.4089, val\_acc: 97.7600, sparsity: 62.3675

Epoch: 23, train\_acc: 99.3444, val\_acc: 97.6800, sparsity: 62.3675

Epoch: 24, train\_acc: 99.4067, val\_acc: 97.5400, sparsity: 62.3675

Epoch: 25, train\_acc: 99.4556, val\_acc: 97.8400, sparsity: 62.3675

Epoch: 26, train\_acc: 99.4778, val\_acc: 97.4000, sparsity: 62.3675

Epoch: 27, train\_acc: 99.4178, val\_acc: 97.6600, sparsity: 62.3675

Epoch: 28, train\_acc: 99.4178, val\_acc: 97.6800, sparsity: 62.3675

Epoch: 29, train\_acc: 99.4578, val\_acc: 97.8400, sparsity: 62.3675

12 trials: score: 0.1345, train\_acc:99.4578, val\_acc:97.8400, test\_acc:90.7100, sparsity:62.3675

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12209890828463517

Epoch: 0, train\_acc: 86.0733, val\_acc: 91.2600, sparsity: 59.3125

Epoch: 1, train\_acc: 89.1511, val\_acc: 89.9800, sparsity: 59.3125

Epoch: 2, train\_acc: 91.7511, val\_acc: 92.1800, sparsity: 59.3125

Epoch: 3, train\_acc: 92.8067, val\_acc: 92.4600, sparsity: 59.3125

Epoch: 4, train\_acc: 93.5556, val\_acc: 89.9600, sparsity: 59.3125

Epoch: 5, train\_acc: 95.8511, val\_acc: 94.7200, sparsity: 59.3125

Epoch: 6, train\_acc: 96.3333, val\_acc: 94.8000, sparsity: 59.3125

Epoch: 7, train\_acc: 96.4333, val\_acc: 94.2200, sparsity: 59.3125

Epoch: 8, train\_acc: 96.5689, val\_acc: 94.4200, sparsity: 59.3125

Epoch: 9, train\_acc: 96.7489, val\_acc: 95.0800, sparsity: 59.3125

Epoch: 10, train\_acc: 96.8911, val\_acc: 95.3400, sparsity: 59.3125

Epoch: 11, train\_acc: 97.1067, val\_acc: 94.7400, sparsity: 59.3125

Epoch: 12, train\_acc: 97.2222, val\_acc: 93.9400, sparsity: 59.3125

Epoch: 13, train\_acc: 97.3244, val\_acc: 95.8800, sparsity: 59.3125

Epoch: 14, train\_acc: 97.5400, val\_acc: 96.0200, sparsity: 59.3125

Epoch: 15, train\_acc: 98.2400, val\_acc: 96.4800, sparsity: 59.3125

Epoch: 16, train\_acc: 98.3911, val\_acc: 96.1000, sparsity: 59.3125

Epoch: 17, train\_acc: 98.4644, val\_acc: 96.7600, sparsity: 59.3125

Epoch: 18, train\_acc: 98.5022, val\_acc: 96.3000, sparsity: 59.3125

Epoch: 19, train\_acc: 98.4844, val\_acc: 96.5400, sparsity: 59.3125

Epoch: 20, train\_acc: 98.5667, val\_acc: 96.0600, sparsity: 59.3125

Epoch: 21, train\_acc: 98.6133, val\_acc: 96.1400, sparsity: 59.3125

Epoch: 22, train\_acc: 98.9356, val\_acc: 97.2000, sparsity: 59.3125

Epoch: 23, train\_acc: 99.0089, val\_acc: 96.7200, sparsity: 59.3125

Epoch: 24, train\_acc: 99.1022, val\_acc: 97.2400, sparsity: 59.3125

Epoch: 25, train\_acc: 99.0378, val\_acc: 96.6400, sparsity: 59.3125

Epoch: 26, train\_acc: 99.0956, val\_acc: 96.9800, sparsity: 59.3125

Epoch: 27, train\_acc: 99.1000, val\_acc: 97.1200, sparsity: 59.3125

Epoch: 28, train\_acc: 99.0889, val\_acc: 97.0600, sparsity: 59.3125

Epoch: 29, train\_acc: 99.1933, val\_acc: 96.9400, sparsity: 59.3125

13 trials: score: 0.1497, train\_acc:99.1933, val\_acc:96.9400, test\_acc:90.2200, sparsity:59.3125

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12209890828463517

Epoch: 0, train\_acc: 88.3956, val\_acc: 92.3200, sparsity: 61.4334

Epoch: 1, train\_acc: 90.2378, val\_acc: 92.2600, sparsity: 61.4334

Epoch: 2, train\_acc: 92.2111, val\_acc: 91.5400, sparsity: 61.4334

Epoch: 3, train\_acc: 92.9622, val\_acc: 92.7400, sparsity: 61.4334

Epoch: 4, train\_acc: 93.9244, val\_acc: 93.6400, sparsity: 61.4334

Epoch: 5, train\_acc: 96.1111, val\_acc: 94.4000, sparsity: 61.4334

Epoch: 6, train\_acc: 96.5978, val\_acc: 93.6600, sparsity: 61.4334

Epoch: 7, train\_acc: 96.4778, val\_acc: 94.5000, sparsity: 61.4334

Epoch: 8, train\_acc: 96.8778, val\_acc: 95.1800, sparsity: 61.4334

Epoch: 9, train\_acc: 96.8689, val\_acc: 95.3000, sparsity: 61.4334

Epoch: 10, train\_acc: 97.3022, val\_acc: 95.5800, sparsity: 61.4334

Epoch: 11, train\_acc: 97.4000, val\_acc: 95.8800, sparsity: 61.4334

Epoch: 12, train\_acc: 97.3800, val\_acc: 95.8200, sparsity: 61.4334

Epoch: 13, train\_acc: 97.5044, val\_acc: 95.3400, sparsity: 61.4334

Epoch: 14, train\_acc: 97.6311, val\_acc: 95.5200, sparsity: 61.4334

Epoch: 15, train\_acc: 98.4489, val\_acc: 96.2200, sparsity: 61.4334

Epoch: 16, train\_acc: 98.5333, val\_acc: 96.1000, sparsity: 61.4334

Epoch: 17, train\_acc: 98.7533, val\_acc: 96.4400, sparsity: 61.4334

Epoch: 18, train\_acc: 98.4667, val\_acc: 96.0800, sparsity: 61.4334

Epoch: 19, train\_acc: 98.7200, val\_acc: 96.4000, sparsity: 61.4334

Epoch: 20, train\_acc: 98.6600, val\_acc: 96.3200, sparsity: 61.4334

Epoch: 21, train\_acc: 98.6244, val\_acc: 96.4800, sparsity: 61.4334

Epoch: 22, train\_acc: 99.0933, val\_acc: 96.5800, sparsity: 61.4334

Epoch: 23, train\_acc: 99.1733, val\_acc: 96.6000, sparsity: 61.4334

Epoch: 24, train\_acc: 99.0756, val\_acc: 96.8600, sparsity: 61.4334

Epoch: 25, train\_acc: 99.1289, val\_acc: 96.9800, sparsity: 61.4334

Epoch: 26, train\_acc: 99.1356, val\_acc: 96.4600, sparsity: 61.4334

Epoch: 27, train\_acc: 99.1156, val\_acc: 96.1600, sparsity: 61.4334

Epoch: 28, train\_acc: 99.1489, val\_acc: 96.5000, sparsity: 61.4334

Epoch: 29, train\_acc: 99.1444, val\_acc: 96.5000, sparsity: 61.4334

14 trials: score: 0.1459, train\_acc:99.1444, val\_acc:96.5000, test\_acc:90.3800, sparsity:61.4334

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12209890828463517

Epoch: 0, train\_acc: 88.8600, val\_acc: 91.4800, sparsity: 67.6239

Epoch: 1, train\_acc: 90.0444, val\_acc: 91.0400, sparsity: 67.6239

Epoch: 2, train\_acc: 92.2333, val\_acc: 90.9400, sparsity: 67.6239

Epoch: 3, train\_acc: 92.3311, val\_acc: 92.0800, sparsity: 67.6239

Epoch: 4, train\_acc: 93.5778, val\_acc: 92.4000, sparsity: 67.6239

Epoch: 5, train\_acc: 95.6356, val\_acc: 94.1800, sparsity: 67.6239

Epoch: 6, train\_acc: 96.0178, val\_acc: 94.7200, sparsity: 67.6239

Epoch: 7, train\_acc: 96.2756, val\_acc: 93.7800, sparsity: 67.6239

Epoch: 8, train\_acc: 96.2644, val\_acc: 94.0600, sparsity: 67.6239

Epoch: 9, train\_acc: 96.5000, val\_acc: 94.9600, sparsity: 67.6239

Epoch: 10, train\_acc: 96.6378, val\_acc: 95.4200, sparsity: 67.6239

Epoch: 11, train\_acc: 96.8244, val\_acc: 94.2000, sparsity: 67.6239

Epoch: 12, train\_acc: 97.1111, val\_acc: 94.4400, sparsity: 67.6239

Epoch: 13, train\_acc: 97.0933, val\_acc: 93.0800, sparsity: 67.6239

Epoch: 14, train\_acc: 97.0444, val\_acc: 95.0000, sparsity: 67.6239

Epoch: 15, train\_acc: 98.0422, val\_acc: 95.7400, sparsity: 67.6239

Epoch: 16, train\_acc: 98.0844, val\_acc: 95.7000, sparsity: 67.6239

Epoch: 17, train\_acc: 98.0711, val\_acc: 95.8200, sparsity: 67.6239

Epoch: 18, train\_acc: 98.1556, val\_acc: 95.5800, sparsity: 67.6239

Epoch: 19, train\_acc: 98.2889, val\_acc: 95.9800, sparsity: 67.6239

Epoch: 20, train\_acc: 98.2689, val\_acc: 95.8200, sparsity: 67.6239

Epoch: 21, train\_acc: 98.3533, val\_acc: 95.6400, sparsity: 67.6239

Epoch: 22, train\_acc: 98.6111, val\_acc: 96.1200, sparsity: 67.6239

Epoch: 23, train\_acc: 98.8289, val\_acc: 95.9400, sparsity: 67.6239

Epoch: 24, train\_acc: 98.8667, val\_acc: 96.0800, sparsity: 67.6239

Epoch: 25, train\_acc: 98.8800, val\_acc: 95.8800, sparsity: 67.6239

Epoch: 26, train\_acc: 98.8067, val\_acc: 96.0400, sparsity: 67.6239

Epoch: 27, train\_acc: 98.9222, val\_acc: 96.3600, sparsity: 67.6239

Epoch: 28, train\_acc: 98.8622, val\_acc: 96.0200, sparsity: 67.6239

Epoch: 29, train\_acc: 98.9800, val\_acc: 96.3800, sparsity: 67.6239

15 trials: score: 0.1333, train\_acc:98.9800, val\_acc:96.3800, test\_acc:90.1100, sparsity:67.6239

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12209890828463517

Epoch: 0, train\_acc: 91.3622, val\_acc: 93.2800, sparsity: 62.4456

Epoch: 1, train\_acc: 92.0400, val\_acc: 93.0600, sparsity: 62.4456

Epoch: 2, train\_acc: 93.4156, val\_acc: 93.0800, sparsity: 62.4456

Epoch: 3, train\_acc: 94.5067, val\_acc: 93.7000, sparsity: 62.4456

Epoch: 4, train\_acc: 94.4911, val\_acc: 93.4000, sparsity: 62.4456

Epoch: 5, train\_acc: 96.9778, val\_acc: 95.8000, sparsity: 62.4456

Epoch: 6, train\_acc: 97.1600, val\_acc: 96.0000, sparsity: 62.4456

Epoch: 7, train\_acc: 97.4711, val\_acc: 96.0000, sparsity: 62.4456

Epoch: 8, train\_acc: 97.4556, val\_acc: 95.9400, sparsity: 62.4456

Epoch: 9, train\_acc: 97.8378, val\_acc: 95.2400, sparsity: 62.4456

Epoch: 10, train\_acc: 97.9200, val\_acc: 95.3000, sparsity: 62.4456

Epoch: 11, train\_acc: 97.9267, val\_acc: 95.6200, sparsity: 62.4456

Epoch: 12, train\_acc: 97.9756, val\_acc: 96.1600, sparsity: 62.4456

Epoch: 13, train\_acc: 98.0800, val\_acc: 96.4000, sparsity: 62.4456

Epoch: 14, train\_acc: 98.3444, val\_acc: 96.4400, sparsity: 62.4456

Epoch: 15, train\_acc: 98.8378, val\_acc: 97.1600, sparsity: 62.4456

Epoch: 16, train\_acc: 98.9111, val\_acc: 96.7000, sparsity: 62.4456

Epoch: 17, train\_acc: 98.9133, val\_acc: 97.5600, sparsity: 62.4456

Epoch: 18, train\_acc: 98.9956, val\_acc: 96.5400, sparsity: 62.4456

Epoch: 19, train\_acc: 99.0244, val\_acc: 97.0400, sparsity: 62.4456

Epoch: 20, train\_acc: 99.0378, val\_acc: 97.2800, sparsity: 62.4456

Epoch: 21, train\_acc: 99.1422, val\_acc: 97.0000, sparsity: 62.4456

Epoch: 22, train\_acc: 99.3778, val\_acc: 97.4800, sparsity: 62.4456

Epoch: 23, train\_acc: 99.3400, val\_acc: 97.4200, sparsity: 62.4456

Epoch: 24, train\_acc: 99.4378, val\_acc: 97.3000, sparsity: 62.4456

Epoch: 25, train\_acc: 99.4156, val\_acc: 97.3800, sparsity: 62.4456

Epoch: 26, train\_acc: 99.3556, val\_acc: 97.4600, sparsity: 62.4456

Epoch: 27, train\_acc: 99.4333, val\_acc: 97.8000, sparsity: 62.4456

Epoch: 28, train\_acc: 99.4156, val\_acc: 97.5600, sparsity: 62.4456

Epoch: 29, train\_acc: 99.4556, val\_acc: 97.6200, sparsity: 62.4456

16 trials: score: 0.1347, train\_acc:99.4556, val\_acc:97.6200, test\_acc:90.1300, sparsity:62.4456

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12209890828463517

Epoch: 0, train\_acc: 92.0422, val\_acc: 95.0200, sparsity: 62.0389

Epoch: 1, train\_acc: 92.5978, val\_acc: 93.3000, sparsity: 62.0389

Epoch: 2, train\_acc: 93.7733, val\_acc: 94.2600, sparsity: 62.0389

Epoch: 3, train\_acc: 94.8600, val\_acc: 91.9600, sparsity: 62.0389

Epoch: 4, train\_acc: 95.4333, val\_acc: 94.0200, sparsity: 62.0389

Epoch: 5, train\_acc: 97.3311, val\_acc: 96.5000, sparsity: 62.0389

Epoch: 6, train\_acc: 97.7689, val\_acc: 95.7200, sparsity: 62.0389

Epoch: 7, train\_acc: 97.7689, val\_acc: 96.7800, sparsity: 62.0389

Epoch: 8, train\_acc: 97.8822, val\_acc: 96.1800, sparsity: 62.0389

Epoch: 9, train\_acc: 98.0000, val\_acc: 96.2600, sparsity: 62.0389

Epoch: 10, train\_acc: 98.1178, val\_acc: 96.9400, sparsity: 62.0389

Epoch: 11, train\_acc: 98.0911, val\_acc: 96.4200, sparsity: 62.0389

Epoch: 12, train\_acc: 98.2200, val\_acc: 96.6400, sparsity: 62.0389

Epoch: 13, train\_acc: 98.1911, val\_acc: 95.5800, sparsity: 62.0389

Epoch: 14, train\_acc: 98.4444, val\_acc: 96.3000, sparsity: 62.0389

Epoch: 15, train\_acc: 98.8800, val\_acc: 97.5800, sparsity: 62.0389

Epoch: 16, train\_acc: 99.1156, val\_acc: 97.1000, sparsity: 62.0389

Epoch: 17, train\_acc: 99.0356, val\_acc: 97.6800, sparsity: 62.0389

Epoch: 18, train\_acc: 99.1511, val\_acc: 97.2800, sparsity: 62.0389

Epoch: 19, train\_acc: 99.1311, val\_acc: 97.6000, sparsity: 62.0389

Epoch: 20, train\_acc: 99.2556, val\_acc: 97.2800, sparsity: 62.0389

Epoch: 21, train\_acc: 99.1778, val\_acc: 97.5600, sparsity: 62.0389

Epoch: 22, train\_acc: 99.4311, val\_acc: 97.9800, sparsity: 62.0389

Epoch: 23, train\_acc: 99.4889, val\_acc: 97.5600, sparsity: 62.0389

Epoch: 24, train\_acc: 99.4533, val\_acc: 97.8200, sparsity: 62.0389

Epoch: 25, train\_acc: 99.5556, val\_acc: 97.9200, sparsity: 62.0389

Epoch: 26, train\_acc: 99.4422, val\_acc: 97.8400, sparsity: 62.0389

Epoch: 27, train\_acc: 99.5178, val\_acc: 97.7400, sparsity: 62.0389

Epoch: 28, train\_acc: 99.6178, val\_acc: 97.7400, sparsity: 62.0389

Epoch: 29, train\_acc: 99.5222, val\_acc: 97.8800, sparsity: 62.0389

17 trials: score: 0.1341, train\_acc:99.5222, val\_acc:97.8800, test\_acc:90.2900, sparsity:62.0389

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12209890828463517

Epoch: 0, train\_acc: 90.1756, val\_acc: 93.3600, sparsity: 65.4029

Epoch: 1, train\_acc: 91.0378, val\_acc: 92.0600, sparsity: 65.4029

Epoch: 2, train\_acc: 92.7178, val\_acc: 92.1600, sparsity: 65.4029

Epoch: 3, train\_acc: 93.8711, val\_acc: 91.8800, sparsity: 65.4029

Epoch: 4, train\_acc: 94.2822, val\_acc: 92.8800, sparsity: 65.4029

Epoch: 5, train\_acc: 96.3511, val\_acc: 94.3000, sparsity: 65.4029

Epoch: 6, train\_acc: 96.6044, val\_acc: 95.6800, sparsity: 65.4029

Epoch: 7, train\_acc: 96.7200, val\_acc: 95.4600, sparsity: 65.4029

Epoch: 8, train\_acc: 97.1356, val\_acc: 95.4400, sparsity: 65.4029

Epoch: 9, train\_acc: 97.0244, val\_acc: 95.5800, sparsity: 65.4029

Epoch: 10, train\_acc: 97.3000, val\_acc: 95.9000, sparsity: 65.4029

Epoch: 11, train\_acc: 97.4333, val\_acc: 95.2800, sparsity: 65.4029

Epoch: 12, train\_acc: 97.4733, val\_acc: 95.8200, sparsity: 65.4029

Epoch: 13, train\_acc: 97.5556, val\_acc: 94.7200, sparsity: 65.4029

Epoch: 14, train\_acc: 97.6400, val\_acc: 95.3800, sparsity: 65.4029

Epoch: 15, train\_acc: 98.5089, val\_acc: 96.3400, sparsity: 65.4029

Epoch: 16, train\_acc: 98.3711, val\_acc: 96.2600, sparsity: 65.4029

Epoch: 17, train\_acc: 98.6933, val\_acc: 96.9000, sparsity: 65.4029

Epoch: 18, train\_acc: 98.7978, val\_acc: 96.8000, sparsity: 65.4029

Epoch: 19, train\_acc: 98.6156, val\_acc: 96.5400, sparsity: 65.4029

Epoch: 20, train\_acc: 98.7289, val\_acc: 96.6800, sparsity: 65.4029

Epoch: 21, train\_acc: 98.7644, val\_acc: 96.4000, sparsity: 65.4029

Epoch: 22, train\_acc: 99.0867, val\_acc: 96.8200, sparsity: 65.4029

Epoch: 23, train\_acc: 99.1089, val\_acc: 97.2400, sparsity: 65.4029

Epoch: 24, train\_acc: 99.1756, val\_acc: 97.1000, sparsity: 65.4029

Epoch: 25, train\_acc: 99.1511, val\_acc: 97.4000, sparsity: 65.4029

Epoch: 26, train\_acc: 99.1867, val\_acc: 97.0600, sparsity: 65.4029

Epoch: 27, train\_acc: 99.2156, val\_acc: 97.0600, sparsity: 65.4029

Epoch: 28, train\_acc: 99.2067, val\_acc: 97.3600, sparsity: 65.4029

Epoch: 29, train\_acc: 99.2333, val\_acc: 96.8400, sparsity: 65.4029

18 trials: score: 0.1298, train\_acc:99.2333, val\_acc:96.8400, test\_acc:90.1000, sparsity:65.4029

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12209890828463517

Epoch: 0, train\_acc: 91.0933, val\_acc: 93.6200, sparsity: 66.3396

Epoch: 1, train\_acc: 91.8156, val\_acc: 90.7000, sparsity: 66.3396

Epoch: 2, train\_acc: 93.3578, val\_acc: 93.6800, sparsity: 66.3396

Epoch: 3, train\_acc: 94.0222, val\_acc: 93.3800, sparsity: 66.3396

Epoch: 4, train\_acc: 95.0311, val\_acc: 92.7200, sparsity: 66.3396

Epoch: 5, train\_acc: 96.9711, val\_acc: 95.6400, sparsity: 66.3396

Epoch: 6, train\_acc: 97.2044, val\_acc: 95.4000, sparsity: 66.3396

Epoch: 7, train\_acc: 97.4378, val\_acc: 96.0000, sparsity: 66.3396

Epoch: 8, train\_acc: 97.5133, val\_acc: 96.5400, sparsity: 66.3396

Epoch: 9, train\_acc: 97.6956, val\_acc: 96.7200, sparsity: 66.3396

Epoch: 10, train\_acc: 97.5867, val\_acc: 95.1800, sparsity: 66.3396

Epoch: 11, train\_acc: 97.8778, val\_acc: 96.6600, sparsity: 66.3396

Epoch: 12, train\_acc: 97.9533, val\_acc: 96.2600, sparsity: 66.3396

Epoch: 13, train\_acc: 98.0689, val\_acc: 95.5400, sparsity: 66.3396

Epoch: 14, train\_acc: 97.9689, val\_acc: 96.1000, sparsity: 66.3396

Epoch: 15, train\_acc: 98.7711, val\_acc: 96.6600, sparsity: 66.3396

Epoch: 16, train\_acc: 98.8778, val\_acc: 96.6800, sparsity: 66.3396

Epoch: 17, train\_acc: 98.9356, val\_acc: 96.7400, sparsity: 66.3396

Epoch: 18, train\_acc: 98.9444, val\_acc: 96.3400, sparsity: 66.3396

Epoch: 19, train\_acc: 98.9667, val\_acc: 97.1400, sparsity: 66.3396

Epoch: 20, train\_acc: 99.0289, val\_acc: 97.0800, sparsity: 66.3396

Epoch: 21, train\_acc: 99.0844, val\_acc: 96.6600, sparsity: 66.3396

Epoch: 22, train\_acc: 99.2889, val\_acc: 97.1000, sparsity: 66.3396

Epoch: 23, train\_acc: 99.3333, val\_acc: 97.2200, sparsity: 66.3396

Epoch: 24, train\_acc: 99.3489, val\_acc: 97.4000, sparsity: 66.3396

Epoch: 25, train\_acc: 99.3578, val\_acc: 97.7000, sparsity: 66.3396

Epoch: 26, train\_acc: 99.3022, val\_acc: 97.1800, sparsity: 66.3396

Epoch: 27, train\_acc: 99.4267, val\_acc: 97.6400, sparsity: 66.3396

Epoch: 28, train\_acc: 99.4333, val\_acc: 97.5200, sparsity: 66.3396

Epoch: 29, train\_acc: 99.3911, val\_acc: 97.6200, sparsity: 66.3396

19 trials: score: 0.1240, train\_acc:99.3911, val\_acc:97.6200, test\_acc:90.2000, sparsity:66.3396

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12209890828463517

Epoch: 0, train\_acc: 89.9267, val\_acc: 93.1400, sparsity: 62.8307

Epoch: 1, train\_acc: 90.5644, val\_acc: 91.1400, sparsity: 62.8307

Epoch: 2, train\_acc: 92.9622, val\_acc: 92.5000, sparsity: 62.8307

Epoch: 3, train\_acc: 93.9956, val\_acc: 93.7400, sparsity: 62.8307

Epoch: 4, train\_acc: 94.1356, val\_acc: 94.5400, sparsity: 62.8307

Epoch: 5, train\_acc: 96.4000, val\_acc: 95.6400, sparsity: 62.8307

Epoch: 6, train\_acc: 96.8756, val\_acc: 95.3400, sparsity: 62.8307

Epoch: 7, train\_acc: 96.9689, val\_acc: 95.6600, sparsity: 62.8307

Epoch: 8, train\_acc: 97.2422, val\_acc: 95.9800, sparsity: 62.8307

Epoch: 9, train\_acc: 97.3067, val\_acc: 94.2000, sparsity: 62.8307

Epoch: 10, train\_acc: 97.3644, val\_acc: 95.1800, sparsity: 62.8307

Epoch: 11, train\_acc: 97.4422, val\_acc: 96.0200, sparsity: 62.8307

Epoch: 12, train\_acc: 97.5489, val\_acc: 95.5800, sparsity: 62.8307

Epoch: 13, train\_acc: 97.5689, val\_acc: 96.6600, sparsity: 62.8307

Epoch: 14, train\_acc: 97.6356, val\_acc: 96.3800, sparsity: 62.8307

Epoch: 15, train\_acc: 98.5667, val\_acc: 96.9600, sparsity: 62.8307

Epoch: 16, train\_acc: 98.6844, val\_acc: 97.3000, sparsity: 62.8307

Epoch: 17, train\_acc: 98.7378, val\_acc: 97.2800, sparsity: 62.8307

Epoch: 18, train\_acc: 98.7111, val\_acc: 96.8200, sparsity: 62.8307

Epoch: 19, train\_acc: 98.7978, val\_acc: 97.2000, sparsity: 62.8307

Epoch: 20, train\_acc: 98.8200, val\_acc: 96.9800, sparsity: 62.8307

Epoch: 21, train\_acc: 98.9089, val\_acc: 97.1400, sparsity: 62.8307

Epoch: 22, train\_acc: 99.0711, val\_acc: 97.1800, sparsity: 62.8307

Epoch: 23, train\_acc: 99.1200, val\_acc: 97.4400, sparsity: 62.8307

Epoch: 24, train\_acc: 99.1422, val\_acc: 97.6600, sparsity: 62.8307

Epoch: 25, train\_acc: 99.2689, val\_acc: 96.7000, sparsity: 62.8307

Epoch: 26, train\_acc: 99.1667, val\_acc: 97.5800, sparsity: 62.8307

Epoch: 27, train\_acc: 99.1667, val\_acc: 97.3000, sparsity: 62.8307

Epoch: 28, train\_acc: 99.2889, val\_acc: 97.7600, sparsity: 62.8307

Epoch: 29, train\_acc: 99.2667, val\_acc: 97.1600, sparsity: 62.8307

20 trials: score: 0.1339, train\_acc:99.2667, val\_acc:97.1600, test\_acc:90.2900, sparsity:62.8307

{'module.layer3.4.conv1.weight': 0.7179242448146458, 'module.layer1.7.conv2.weight': 0.595538741654875, 'module.layer2.1.conv1.weight': 0.914350048478572, 'module.layer3.8.conv2.weight': 0.9346263981800862, 'module.layer3.5.conv1.weight': 0.7437203635570573, 'module.layer3.6.conv2.weight': 0.8396301352022388, 'module.layer1.1.conv2.weight': 0.7582947208184044, 'module.layer2.0.conv1.weight': 0.4720499331251051, 'module.layer3.7.conv2.weight': 0.5621937638060444, 'module.layer1.5.conv2.weight': 0.3797556919205255, 'module.layer1.0.conv2.weight': 0.7267698917976484, 'module.layer3.1.conv2.weight': 0.8864892691266273, 'module.layer1.2.conv2.weight': 0.9371574763484356, 'module.layer1.8.conv1.weight': 0.5251330913889184, 'module.conv1.weight': 0.5194535348518798, 'module.layer1.4.conv2.weight': 0.9087427319150598, 'module.layer1.5.conv1.weight': 0.805953997682668, 'module.layer2.4.conv2.weight': 0.6150045024391584, 'module.layer2.3.conv1.weight': 0.972311697355797, 'module.layer3.4.conv2.weight': 0.570831766815719, 'module.layer2.6.conv1.weight': 0.5865771681621621, 'module.layer2.8.conv1.weight': 0.5218551540435429, 'module.layer3.2.conv1.weight': 0.7240177528897591, 'module.layer2.1.conv2.weight': 0.3975575174004762, 'module.layer2.0.conv2.weight': 0.3865046128648781, 'module.layer2.2.conv2.weight': 0.9200914484465734, 'module.layer1.8.conv2.weight': 0.6951642166267687, 'module.layer2.8.conv2.weight': 0.5390525809921946, 'module.layer3.2.conv2.weight': 0.30066644385031444, 'module.layer3.0.conv1.weight': 0.5744179465798449, 'module.layer2.2.conv1.weight': 0.3792972000275787, 'module.layer1.6.conv1.weight': 0.368141891071684, 'module.layer3.5.conv2.weight': 0.7446806275134369, 'module.layer3.0.conv2.weight': 0.8405076842019539, 'module.layer3.8.conv1.weight': 0.4818312523313128, 'module.layer1.6.conv2.weight': 0.3434993387019012, 'module.layer1.0.conv1.weight': 0.6012716397353274, 'module.layer1.4.conv1.weight': 0.7633862595150838, 'module.layer1.3.conv2.weight': 0.76934172597243, 'module.layer3.6.conv1.weight': 0.8869186106692295, 'module.layer1.7.conv1.weight': 0.3932932049312776, 'module.layer2.6.conv2.weight': 0.5503621746403488, 'module.layer2.7.conv1.weight': 0.8265281662702622, 'module.layer2.4.conv1.weight': 0.9200734903198717, 'module.layer2.5.conv1.weight': 0.7982760079739961, 'module.layer1.1.conv1.weight': 0.5080057453400921, 'module.layer2.7.conv2.weight': 0.3913370638665347, 'module.layer3.7.conv1.weight': 0.5455590141715766, 'module.layer3.1.conv1.weight': 0.7252093671418963, 'module.layer1.2.conv1.weight': 0.6463815269010496, 'module.layer1.3.conv1.weight': 0.7675537875544625, 'module.layer3.3.conv2.weight': 0.4647140185832457, 'module.layer2.5.conv2.weight': 0.9853008500128666, 'module.layer2.3.conv2.weight': 0.6908451194256224, 'module.layer3.3.conv1.weight': 0.9035237092664263}

TPE No Constraint

python auto.py --arch resnet56\_cifar --gpus=0 --lr=0.003 ../../../data.cifar10 -b=128 -j=1 --deterministic --resume='./pertrain base line/2018.11.08-213504/best.pth.tar' --rounds=20 --epochs=30

Files already downloaded and verified

Files already downloaded and verified

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

10.0

Epoch: 0, train\_acc: 93.9933, val\_acc: 95.7800, sparsity: 63.3868

Epoch: 1, train\_acc: 93.2333, val\_acc: 93.8000, sparsity: 63.3868

Epoch: 2, train\_acc: 94.8044, val\_acc: 95.4000, sparsity: 63.3868

Epoch: 3, train\_acc: 95.4711, val\_acc: 95.7200, sparsity: 63.3868

Epoch: 4, train\_acc: 96.0000, val\_acc: 94.5400, sparsity: 63.3868

Epoch: 5, train\_acc: 97.8222, val\_acc: 96.6000, sparsity: 63.3868

Epoch: 6, train\_acc: 97.9556, val\_acc: 97.5800, sparsity: 63.3868

Epoch: 7, train\_acc: 98.1244, val\_acc: 97.0200, sparsity: 63.3868

Epoch: 8, train\_acc: 98.2111, val\_acc: 97.3200, sparsity: 63.3868

Epoch: 9, train\_acc: 98.2089, val\_acc: 97.3200, sparsity: 63.3868

Epoch: 10, train\_acc: 98.2444, val\_acc: 97.4800, sparsity: 63.3868

Epoch: 11, train\_acc: 98.3111, val\_acc: 96.8600, sparsity: 63.3868

Epoch: 12, train\_acc: 98.5444, val\_acc: 97.3800, sparsity: 63.3868

Epoch: 13, train\_acc: 98.7178, val\_acc: 95.7800, sparsity: 63.3868

Epoch: 14, train\_acc: 98.6711, val\_acc: 96.3600, sparsity: 63.3868

Epoch: 15, train\_acc: 99.0733, val\_acc: 97.7400, sparsity: 63.3868

Epoch: 16, train\_acc: 99.1911, val\_acc: 97.2600, sparsity: 63.3868

Epoch: 17, train\_acc: 99.2444, val\_acc: 97.6800, sparsity: 63.3868

Epoch: 18, train\_acc: 99.2889, val\_acc: 97.7800, sparsity: 63.3868

Epoch: 19, train\_acc: 99.3356, val\_acc: 97.4800, sparsity: 63.3868

Epoch: 20, train\_acc: 99.3444, val\_acc: 97.2000, sparsity: 63.3868

Epoch: 21, train\_acc: 99.3711, val\_acc: 97.6200, sparsity: 63.3868

Epoch: 22, train\_acc: 99.5267, val\_acc: 97.7000, sparsity: 63.3868

Epoch: 23, train\_acc: 99.5489, val\_acc: 98.0600, sparsity: 63.3868

Epoch: 24, train\_acc: 99.5578, val\_acc: 98.2400, sparsity: 63.3868

Epoch: 25, train\_acc: 99.5489, val\_acc: 97.8000, sparsity: 63.3868

Epoch: 26, train\_acc: 99.6044, val\_acc: 98.3600, sparsity: 63.3868

Epoch: 27, train\_acc: 99.6422, val\_acc: 98.4800, sparsity: 63.3868

Epoch: 28, train\_acc: 99.6156, val\_acc: 97.9400, sparsity: 63.3868

Epoch: 29, train\_acc: 99.6578, val\_acc: 97.9800, sparsity: 63.3868

1 trials: score: 0.1250, train\_acc:99.6578, val\_acc:97.9800, test\_acc:90.5200, sparsity:63.3868

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12503964843383

Epoch: 0, train\_acc: 90.8489, val\_acc: 93.4000, sparsity: 68.9222

Epoch: 1, train\_acc: 91.5756, val\_acc: 92.2200, sparsity: 68.9222

Epoch: 2, train\_acc: 93.4111, val\_acc: 92.3000, sparsity: 68.9222

Epoch: 3, train\_acc: 93.7511, val\_acc: 95.0200, sparsity: 68.9222

Epoch: 4, train\_acc: 94.5533, val\_acc: 92.7200, sparsity: 68.9222

Epoch: 5, train\_acc: 96.6356, val\_acc: 95.8200, sparsity: 68.9222

Epoch: 6, train\_acc: 96.8467, val\_acc: 96.0800, sparsity: 68.9222

Epoch: 7, train\_acc: 97.0600, val\_acc: 96.0600, sparsity: 68.9222

Epoch: 8, train\_acc: 97.1267, val\_acc: 95.9600, sparsity: 68.9222

Epoch: 9, train\_acc: 97.2422, val\_acc: 95.8800, sparsity: 68.9222

Epoch: 10, train\_acc: 97.2267, val\_acc: 95.9600, sparsity: 68.9222

Epoch: 11, train\_acc: 97.2844, val\_acc: 95.0000, sparsity: 68.9222

Epoch: 12, train\_acc: 97.4956, val\_acc: 95.4600, sparsity: 68.9222

Epoch: 13, train\_acc: 97.5067, val\_acc: 95.5600, sparsity: 68.9222

Epoch: 14, train\_acc: 97.6289, val\_acc: 96.0600, sparsity: 68.9222

Epoch: 15, train\_acc: 98.5111, val\_acc: 96.7600, sparsity: 68.9222

Epoch: 16, train\_acc: 98.4822, val\_acc: 96.2200, sparsity: 68.9222

Epoch: 17, train\_acc: 98.7111, val\_acc: 96.7600, sparsity: 68.9222

Epoch: 18, train\_acc: 98.6511, val\_acc: 96.7800, sparsity: 68.9222

Epoch: 19, train\_acc: 98.7667, val\_acc: 96.4000, sparsity: 68.9222

Epoch: 20, train\_acc: 98.8600, val\_acc: 96.9400, sparsity: 68.9222

Epoch: 21, train\_acc: 98.7289, val\_acc: 96.4400, sparsity: 68.9222

Epoch: 22, train\_acc: 99.0911, val\_acc: 96.9400, sparsity: 68.9222

Epoch: 23, train\_acc: 99.0644, val\_acc: 96.8600, sparsity: 68.9222

Epoch: 24, train\_acc: 99.1867, val\_acc: 97.0400, sparsity: 68.9222

Epoch: 25, train\_acc: 99.1067, val\_acc: 96.7200, sparsity: 68.9222

Epoch: 26, train\_acc: 99.1778, val\_acc: 97.1600, sparsity: 68.9222

Epoch: 27, train\_acc: 99.2333, val\_acc: 97.0200, sparsity: 68.9222

Epoch: 28, train\_acc: 99.1800, val\_acc: 97.1800, sparsity: 68.9222

Epoch: 29, train\_acc: 99.2489, val\_acc: 97.1000, sparsity: 68.9222

2 trials: score: 0.1214, train\_acc:99.2489, val\_acc:97.1000, test\_acc:90.4100, sparsity:68.9222

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12143350213269685

Epoch: 0, train\_acc: 90.0467, val\_acc: 93.0800, sparsity: 65.3271

Epoch: 1, train\_acc: 91.1089, val\_acc: 91.6800, sparsity: 65.3271

Epoch: 2, train\_acc: 93.0556, val\_acc: 94.1400, sparsity: 65.3271

Epoch: 3, train\_acc: 93.8044, val\_acc: 93.5400, sparsity: 65.3271

Epoch: 4, train\_acc: 94.7600, val\_acc: 94.0600, sparsity: 65.3271

Epoch: 5, train\_acc: 96.6711, val\_acc: 95.4400, sparsity: 65.3271

Epoch: 6, train\_acc: 96.9978, val\_acc: 95.7800, sparsity: 65.3271

Epoch: 7, train\_acc: 97.2133, val\_acc: 95.6200, sparsity: 65.3271

Epoch: 8, train\_acc: 97.2422, val\_acc: 96.1600, sparsity: 65.3271

Epoch: 9, train\_acc: 97.5378, val\_acc: 95.3200, sparsity: 65.3271

Epoch: 10, train\_acc: 97.4578, val\_acc: 95.4800, sparsity: 65.3271

Epoch: 11, train\_acc: 97.5667, val\_acc: 96.6000, sparsity: 65.3271

Epoch: 12, train\_acc: 97.8067, val\_acc: 96.1600, sparsity: 65.3271

Epoch: 13, train\_acc: 97.9733, val\_acc: 96.3400, sparsity: 65.3271

Epoch: 14, train\_acc: 97.8711, val\_acc: 96.6800, sparsity: 65.3271

Epoch: 15, train\_acc: 98.6844, val\_acc: 97.0200, sparsity: 65.3271

Epoch: 16, train\_acc: 98.6489, val\_acc: 96.8400, sparsity: 65.3271

Epoch: 17, train\_acc: 98.8178, val\_acc: 96.8400, sparsity: 65.3271

Epoch: 18, train\_acc: 98.7889, val\_acc: 97.3800, sparsity: 65.3271

Epoch: 19, train\_acc: 98.8222, val\_acc: 97.0200, sparsity: 65.3271

Epoch: 20, train\_acc: 98.8711, val\_acc: 96.6000, sparsity: 65.3271

Epoch: 21, train\_acc: 98.8244, val\_acc: 96.8800, sparsity: 65.3271

Epoch: 22, train\_acc: 99.2267, val\_acc: 97.2200, sparsity: 65.3271

Epoch: 23, train\_acc: 99.2778, val\_acc: 97.3600, sparsity: 65.3271

Epoch: 24, train\_acc: 99.2911, val\_acc: 97.4400, sparsity: 65.3271

Epoch: 25, train\_acc: 99.4022, val\_acc: 97.5000, sparsity: 65.3271

Epoch: 26, train\_acc: 99.2644, val\_acc: 97.3400, sparsity: 65.3271

Epoch: 27, train\_acc: 99.3622, val\_acc: 97.5200, sparsity: 65.3271

Epoch: 28, train\_acc: 99.3178, val\_acc: 97.4400, sparsity: 65.3271

Epoch: 29, train\_acc: 99.3200, val\_acc: 97.5600, sparsity: 65.3271

3 trials: score: 0.1284, train\_acc:99.3200, val\_acc:97.5600, test\_acc:90.0800, sparsity:65.3271

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12143350213269685

Epoch: 0, train\_acc: 85.7311, val\_acc: 91.0000, sparsity: 59.4185

Epoch: 1, train\_acc: 88.4667, val\_acc: 90.4400, sparsity: 59.4185

Epoch: 2, train\_acc: 90.8022, val\_acc: 90.9000, sparsity: 59.4185

Epoch: 3, train\_acc: 91.9778, val\_acc: 91.2400, sparsity: 59.4185

Epoch: 4, train\_acc: 92.6911, val\_acc: 93.2400, sparsity: 59.4185

Epoch: 5, train\_acc: 95.2444, val\_acc: 94.2600, sparsity: 59.4185

Epoch: 6, train\_acc: 95.6222, val\_acc: 94.9600, sparsity: 59.4185

Epoch: 7, train\_acc: 95.6800, val\_acc: 94.5800, sparsity: 59.4185

Epoch: 8, train\_acc: 96.0533, val\_acc: 94.3000, sparsity: 59.4185

Epoch: 9, train\_acc: 96.2244, val\_acc: 94.2400, sparsity: 59.4185

Epoch: 10, train\_acc: 96.3200, val\_acc: 94.4000, sparsity: 59.4185

Epoch: 11, train\_acc: 96.2578, val\_acc: 94.5000, sparsity: 59.4185

Epoch: 12, train\_acc: 96.7044, val\_acc: 93.8000, sparsity: 59.4185

Epoch: 13, train\_acc: 96.7222, val\_acc: 95.7800, sparsity: 59.4185

Epoch: 14, train\_acc: 96.9378, val\_acc: 94.7400, sparsity: 59.4185

Epoch: 15, train\_acc: 97.7444, val\_acc: 95.8000, sparsity: 59.4185

Epoch: 16, train\_acc: 97.8911, val\_acc: 95.6600, sparsity: 59.4185

Epoch: 17, train\_acc: 98.0311, val\_acc: 95.9800, sparsity: 59.4185

Epoch: 18, train\_acc: 98.0533, val\_acc: 95.7800, sparsity: 59.4185

Epoch: 19, train\_acc: 98.2000, val\_acc: 96.2600, sparsity: 59.4185

Epoch: 20, train\_acc: 98.2311, val\_acc: 95.6600, sparsity: 59.4185

Epoch: 21, train\_acc: 98.1844, val\_acc: 95.5400, sparsity: 59.4185

Epoch: 22, train\_acc: 98.6711, val\_acc: 96.3000, sparsity: 59.4185

Epoch: 23, train\_acc: 98.7200, val\_acc: 96.0600, sparsity: 59.4185

Epoch: 24, train\_acc: 98.6911, val\_acc: 96.2600, sparsity: 59.4185

Epoch: 25, train\_acc: 98.7289, val\_acc: 96.1800, sparsity: 59.4185

Epoch: 26, train\_acc: 98.6089, val\_acc: 96.5000, sparsity: 59.4185

Epoch: 27, train\_acc: 98.9178, val\_acc: 96.7600, sparsity: 59.4185

Epoch: 28, train\_acc: 98.7000, val\_acc: 96.1200, sparsity: 59.4185

Epoch: 29, train\_acc: 98.7867, val\_acc: 96.4400, sparsity: 59.4185

4 trials: score: 0.1541, train\_acc:98.7867, val\_acc:96.4400, test\_acc:90.1400, sparsity:59.4185

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12143350213269685

Epoch: 0, train\_acc: 93.9911, val\_acc: 95.6200, sparsity: 58.4627

Epoch: 1, train\_acc: 93.3444, val\_acc: 94.4400, sparsity: 58.4627

Epoch: 2, train\_acc: 94.6022, val\_acc: 93.9400, sparsity: 58.4627

Epoch: 3, train\_acc: 95.1822, val\_acc: 95.5000, sparsity: 58.4627

Epoch: 4, train\_acc: 96.0222, val\_acc: 96.0400, sparsity: 58.4627

Epoch: 5, train\_acc: 97.8711, val\_acc: 96.9800, sparsity: 58.4627

Epoch: 6, train\_acc: 98.0911, val\_acc: 96.2200, sparsity: 58.4627

Epoch: 7, train\_acc: 98.2978, val\_acc: 96.9400, sparsity: 58.4627

Epoch: 8, train\_acc: 98.2422, val\_acc: 97.1600, sparsity: 58.4627

Epoch: 9, train\_acc: 98.3022, val\_acc: 97.5000, sparsity: 58.4627

Epoch: 10, train\_acc: 98.3222, val\_acc: 97.0800, sparsity: 58.4627

Epoch: 11, train\_acc: 98.5533, val\_acc: 97.1200, sparsity: 58.4627

Epoch: 12, train\_acc: 98.3467, val\_acc: 97.1600, sparsity: 58.4627

Epoch: 13, train\_acc: 98.6222, val\_acc: 96.6400, sparsity: 58.4627

Epoch: 14, train\_acc: 98.5667, val\_acc: 96.5000, sparsity: 58.4627

Epoch: 15, train\_acc: 99.1489, val\_acc: 98.2000, sparsity: 58.4627

Epoch: 16, train\_acc: 99.3911, val\_acc: 98.2600, sparsity: 58.4627

Epoch: 17, train\_acc: 99.4556, val\_acc: 97.7200, sparsity: 58.4627

Epoch: 18, train\_acc: 99.2956, val\_acc: 97.9600, sparsity: 58.4627

Epoch: 19, train\_acc: 99.4133, val\_acc: 98.2400, sparsity: 58.4627

Epoch: 20, train\_acc: 99.4778, val\_acc: 98.0000, sparsity: 58.4627

Epoch: 21, train\_acc: 99.3111, val\_acc: 98.3400, sparsity: 58.4627

Epoch: 22, train\_acc: 99.5667, val\_acc: 98.1200, sparsity: 58.4627

Epoch: 23, train\_acc: 99.6378, val\_acc: 98.3400, sparsity: 58.4627

Epoch: 24, train\_acc: 99.6644, val\_acc: 98.5200, sparsity: 58.4627

Epoch: 25, train\_acc: 99.6867, val\_acc: 98.2800, sparsity: 58.4627

Epoch: 26, train\_acc: 99.6733, val\_acc: 98.2200, sparsity: 58.4627

Epoch: 27, train\_acc: 99.5956, val\_acc: 98.4600, sparsity: 58.4627

Epoch: 28, train\_acc: 99.6578, val\_acc: 98.1600, sparsity: 58.4627

Epoch: 29, train\_acc: 99.6600, val\_acc: 98.5200, sparsity: 58.4627

5 trials: score: 0.1394, train\_acc:99.6600, val\_acc:98.5200, test\_acc:90.5300, sparsity:58.4627

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12143350213269685

Epoch: 0, train\_acc: 91.3844, val\_acc: 94.2800, sparsity: 62.8610

Epoch: 1, train\_acc: 91.4756, val\_acc: 91.5600, sparsity: 62.8610

Epoch: 2, train\_acc: 93.1911, val\_acc: 91.5600, sparsity: 62.8610

Epoch: 3, train\_acc: 94.2733, val\_acc: 93.6400, sparsity: 62.8610

Epoch: 4, train\_acc: 94.7911, val\_acc: 94.6000, sparsity: 62.8610

Epoch: 5, train\_acc: 96.7244, val\_acc: 95.9000, sparsity: 62.8610

Epoch: 6, train\_acc: 97.2756, val\_acc: 95.7000, sparsity: 62.8610

Epoch: 7, train\_acc: 97.3978, val\_acc: 96.2600, sparsity: 62.8610

Epoch: 8, train\_acc: 97.5156, val\_acc: 96.3000, sparsity: 62.8610

Epoch: 9, train\_acc: 97.7333, val\_acc: 96.7000, sparsity: 62.8610

Epoch: 10, train\_acc: 97.7533, val\_acc: 95.9000, sparsity: 62.8610

Epoch: 11, train\_acc: 97.8356, val\_acc: 96.4200, sparsity: 62.8610

Epoch: 12, train\_acc: 97.7556, val\_acc: 96.5600, sparsity: 62.8610

Epoch: 13, train\_acc: 97.8444, val\_acc: 95.5400, sparsity: 62.8610

Epoch: 14, train\_acc: 97.8689, val\_acc: 96.4400, sparsity: 62.8610

Epoch: 15, train\_acc: 98.6844, val\_acc: 97.1600, sparsity: 62.8610

Epoch: 16, train\_acc: 98.8244, val\_acc: 96.9800, sparsity: 62.8610

Epoch: 17, train\_acc: 98.8333, val\_acc: 97.1200, sparsity: 62.8610

Epoch: 18, train\_acc: 98.9067, val\_acc: 97.2600, sparsity: 62.8610

Epoch: 19, train\_acc: 99.0333, val\_acc: 96.7400, sparsity: 62.8610

Epoch: 20, train\_acc: 98.9889, val\_acc: 97.0000, sparsity: 62.8610

Epoch: 21, train\_acc: 98.9489, val\_acc: 97.1200, sparsity: 62.8610

Epoch: 22, train\_acc: 99.2933, val\_acc: 97.1800, sparsity: 62.8610

Epoch: 23, train\_acc: 99.3289, val\_acc: 97.5400, sparsity: 62.8610

Epoch: 24, train\_acc: 99.3222, val\_acc: 97.5600, sparsity: 62.8610

Epoch: 25, train\_acc: 99.2956, val\_acc: 97.3200, sparsity: 62.8610

Epoch: 26, train\_acc: 99.3489, val\_acc: 97.1400, sparsity: 62.8610

Epoch: 27, train\_acc: 99.3333, val\_acc: 97.3200, sparsity: 62.8610

Epoch: 28, train\_acc: 99.4133, val\_acc: 97.5400, sparsity: 62.8610

Epoch: 29, train\_acc: 99.4089, val\_acc: 97.2000, sparsity: 62.8610

6 trials: score: 0.1358, train\_acc:99.4089, val\_acc:97.2000, test\_acc:90.5900, sparsity:62.8610

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12143350213269685

Epoch: 0, train\_acc: 91.2978, val\_acc: 94.5000, sparsity: 63.0949

Epoch: 1, train\_acc: 91.3356, val\_acc: 90.9200, sparsity: 63.0949

Epoch: 2, train\_acc: 93.1889, val\_acc: 93.4800, sparsity: 63.0949

Epoch: 3, train\_acc: 93.9444, val\_acc: 93.6200, sparsity: 63.0949

Epoch: 4, train\_acc: 94.8156, val\_acc: 94.6000, sparsity: 63.0949

Epoch: 5, train\_acc: 96.4267, val\_acc: 94.7600, sparsity: 63.0949

Epoch: 6, train\_acc: 97.0311, val\_acc: 96.1600, sparsity: 63.0949

Epoch: 7, train\_acc: 97.2333, val\_acc: 96.5000, sparsity: 63.0949

Epoch: 8, train\_acc: 97.4022, val\_acc: 95.5200, sparsity: 63.0949

Epoch: 9, train\_acc: 97.2578, val\_acc: 95.1800, sparsity: 63.0949

Epoch: 10, train\_acc: 97.4867, val\_acc: 95.8800, sparsity: 63.0949

Epoch: 11, train\_acc: 97.4844, val\_acc: 95.9400, sparsity: 63.0949

Epoch: 12, train\_acc: 97.6689, val\_acc: 96.5000, sparsity: 63.0949

Epoch: 13, train\_acc: 97.7733, val\_acc: 95.1200, sparsity: 63.0949

Epoch: 14, train\_acc: 97.8622, val\_acc: 95.9400, sparsity: 63.0949

Epoch: 15, train\_acc: 98.4622, val\_acc: 97.0800, sparsity: 63.0949

Epoch: 16, train\_acc: 98.7000, val\_acc: 96.7000, sparsity: 63.0949

Epoch: 17, train\_acc: 98.7089, val\_acc: 96.4800, sparsity: 63.0949

Epoch: 18, train\_acc: 98.6867, val\_acc: 96.6600, sparsity: 63.0949

Epoch: 19, train\_acc: 98.8556, val\_acc: 96.3800, sparsity: 63.0949

Epoch: 20, train\_acc: 98.8778, val\_acc: 97.1000, sparsity: 63.0949

Epoch: 21, train\_acc: 98.9733, val\_acc: 97.0600, sparsity: 63.0949

Epoch: 22, train\_acc: 99.1489, val\_acc: 96.9000, sparsity: 63.0949

Epoch: 23, train\_acc: 99.2422, val\_acc: 97.0600, sparsity: 63.0949

Epoch: 24, train\_acc: 99.2689, val\_acc: 96.8200, sparsity: 63.0949

Epoch: 25, train\_acc: 99.2044, val\_acc: 97.2800, sparsity: 63.0949

Epoch: 26, train\_acc: 99.2067, val\_acc: 97.4200, sparsity: 63.0949

Epoch: 27, train\_acc: 99.2400, val\_acc: 97.1200, sparsity: 63.0949

Epoch: 28, train\_acc: 99.2556, val\_acc: 97.1200, sparsity: 63.0949

Epoch: 29, train\_acc: 99.2667, val\_acc: 97.2600, sparsity: 63.0949

7 trials: score: 0.1365, train\_acc:99.2667, val\_acc:97.2600, test\_acc:90.5400, sparsity:63.0949

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12143350213269685

Epoch: 0, train\_acc: 89.7244, val\_acc: 93.0600, sparsity: 66.1005

Epoch: 1, train\_acc: 90.9111, val\_acc: 89.4400, sparsity: 66.1005

Epoch: 2, train\_acc: 92.6200, val\_acc: 91.6600, sparsity: 66.1005

Epoch: 3, train\_acc: 93.5267, val\_acc: 92.9400, sparsity: 66.1005

Epoch: 4, train\_acc: 94.1178, val\_acc: 94.8000, sparsity: 66.1005

Epoch: 5, train\_acc: 96.2311, val\_acc: 94.7800, sparsity: 66.1005

Epoch: 6, train\_acc: 96.5044, val\_acc: 95.6400, sparsity: 66.1005

Epoch: 7, train\_acc: 96.9644, val\_acc: 95.3000, sparsity: 66.1005

Epoch: 8, train\_acc: 96.9089, val\_acc: 95.7800, sparsity: 66.1005

Epoch: 9, train\_acc: 97.0600, val\_acc: 95.3400, sparsity: 66.1005

Epoch: 10, train\_acc: 97.3489, val\_acc: 96.2200, sparsity: 66.1005

Epoch: 11, train\_acc: 97.1867, val\_acc: 95.4400, sparsity: 66.1005

Epoch: 12, train\_acc: 97.3200, val\_acc: 95.6200, sparsity: 66.1005

Epoch: 13, train\_acc: 97.5978, val\_acc: 94.9400, sparsity: 66.1005

Epoch: 14, train\_acc: 97.5733, val\_acc: 96.4400, sparsity: 66.1005

Epoch: 15, train\_acc: 98.4111, val\_acc: 96.4600, sparsity: 66.1005

Epoch: 16, train\_acc: 98.4400, val\_acc: 96.5000, sparsity: 66.1005

Epoch: 17, train\_acc: 98.5711, val\_acc: 96.4400, sparsity: 66.1005

Epoch: 18, train\_acc: 98.5800, val\_acc: 96.3600, sparsity: 66.1005

Epoch: 19, train\_acc: 98.6711, val\_acc: 96.2000, sparsity: 66.1005

Epoch: 20, train\_acc: 98.7978, val\_acc: 96.9800, sparsity: 66.1005

Epoch: 21, train\_acc: 98.7667, val\_acc: 96.7000, sparsity: 66.1005

Epoch: 22, train\_acc: 99.1111, val\_acc: 96.6200, sparsity: 66.1005

Epoch: 23, train\_acc: 99.1622, val\_acc: 97.0400, sparsity: 66.1005

Epoch: 24, train\_acc: 99.1533, val\_acc: 97.2800, sparsity: 66.1005

Epoch: 25, train\_acc: 99.1667, val\_acc: 96.8200, sparsity: 66.1005

Epoch: 26, train\_acc: 99.1067, val\_acc: 97.0000, sparsity: 66.1005

Epoch: 27, train\_acc: 99.0978, val\_acc: 97.0000, sparsity: 66.1005

Epoch: 28, train\_acc: 99.1156, val\_acc: 96.9000, sparsity: 66.1005

Epoch: 29, train\_acc: 99.2022, val\_acc: 97.2000, sparsity: 66.1005

8 trials: score: 0.1289, train\_acc:99.2022, val\_acc:97.2000, test\_acc:90.0800, sparsity:66.1005

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12143350213269685

Epoch: 0, train\_acc: 85.4244, val\_acc: 90.1600, sparsity: 66.8992

Epoch: 1, train\_acc: 88.2444, val\_acc: 89.2600, sparsity: 66.8992

Epoch: 2, train\_acc: 90.2578, val\_acc: 91.0400, sparsity: 66.8992

Epoch: 3, train\_acc: 92.0600, val\_acc: 92.2600, sparsity: 66.8992

Epoch: 4, train\_acc: 92.9289, val\_acc: 91.6400, sparsity: 66.8992

Epoch: 5, train\_acc: 94.9222, val\_acc: 94.3000, sparsity: 66.8992

Epoch: 6, train\_acc: 95.4689, val\_acc: 94.3800, sparsity: 66.8992

Epoch: 7, train\_acc: 95.6356, val\_acc: 94.4600, sparsity: 66.8992

Epoch: 8, train\_acc: 95.8956, val\_acc: 94.5000, sparsity: 66.8992

Epoch: 9, train\_acc: 96.0111, val\_acc: 94.7200, sparsity: 66.8992

Epoch: 10, train\_acc: 96.2200, val\_acc: 95.3000, sparsity: 66.8992

Epoch: 11, train\_acc: 96.2644, val\_acc: 94.3200, sparsity: 66.8992

Epoch: 12, train\_acc: 96.2733, val\_acc: 94.8000, sparsity: 66.8992

Epoch: 13, train\_acc: 96.7511, val\_acc: 95.6000, sparsity: 66.8992

Epoch: 14, train\_acc: 96.8067, val\_acc: 94.7400, sparsity: 66.8992

Epoch: 15, train\_acc: 97.6911, val\_acc: 95.8000, sparsity: 66.8992

Epoch: 16, train\_acc: 97.7222, val\_acc: 95.5800, sparsity: 66.8992

Epoch: 17, train\_acc: 97.7733, val\_acc: 95.6400, sparsity: 66.8992

Epoch: 18, train\_acc: 97.9044, val\_acc: 95.9800, sparsity: 66.8992

Epoch: 19, train\_acc: 97.8511, val\_acc: 96.3200, sparsity: 66.8992

Epoch: 20, train\_acc: 97.9356, val\_acc: 95.4600, sparsity: 66.8992

Epoch: 21, train\_acc: 98.0267, val\_acc: 96.3800, sparsity: 66.8992

Epoch: 22, train\_acc: 98.3044, val\_acc: 96.2400, sparsity: 66.8992

Epoch: 23, train\_acc: 98.5133, val\_acc: 96.1600, sparsity: 66.8992

Epoch: 24, train\_acc: 98.6156, val\_acc: 96.3000, sparsity: 66.8992

Epoch: 25, train\_acc: 98.6222, val\_acc: 96.1800, sparsity: 66.8992

Epoch: 26, train\_acc: 98.6156, val\_acc: 96.3200, sparsity: 66.8992

Epoch: 27, train\_acc: 98.7622, val\_acc: 96.3000, sparsity: 66.8992

Epoch: 28, train\_acc: 98.7667, val\_acc: 96.3000, sparsity: 66.8992

Epoch: 29, train\_acc: 98.7867, val\_acc: 96.6000, sparsity: 66.8992

9 trials: score: 0.1333, train\_acc:98.7867, val\_acc:96.6000, test\_acc:89.5800, sparsity:66.8992

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12143350213269685

Epoch: 0, train\_acc: 92.8222, val\_acc: 95.5200, sparsity: 57.6561

Epoch: 1, train\_acc: 92.9222, val\_acc: 92.9200, sparsity: 57.6561

Epoch: 2, train\_acc: 94.5356, val\_acc: 95.4400, sparsity: 57.6561

Epoch: 3, train\_acc: 95.3844, val\_acc: 94.7200, sparsity: 57.6561

Epoch: 4, train\_acc: 95.7267, val\_acc: 96.1600, sparsity: 57.6561

Epoch: 5, train\_acc: 97.6022, val\_acc: 96.4200, sparsity: 57.6561

Epoch: 6, train\_acc: 97.8689, val\_acc: 97.3200, sparsity: 57.6561

Epoch: 7, train\_acc: 97.9489, val\_acc: 97.0000, sparsity: 57.6561

Epoch: 8, train\_acc: 98.1689, val\_acc: 97.1600, sparsity: 57.6561

Epoch: 9, train\_acc: 98.0956, val\_acc: 95.2600, sparsity: 57.6561

Epoch: 10, train\_acc: 98.2311, val\_acc: 96.9200, sparsity: 57.6561

Epoch: 11, train\_acc: 98.2422, val\_acc: 97.2800, sparsity: 57.6561

Epoch: 12, train\_acc: 98.5978, val\_acc: 96.9400, sparsity: 57.6561

Epoch: 13, train\_acc: 98.4711, val\_acc: 96.7600, sparsity: 57.6561

Epoch: 14, train\_acc: 98.5933, val\_acc: 97.6400, sparsity: 57.6561

Epoch: 15, train\_acc: 99.1644, val\_acc: 97.8400, sparsity: 57.6561

Epoch: 16, train\_acc: 99.2356, val\_acc: 98.1000, sparsity: 57.6561

Epoch: 17, train\_acc: 99.2600, val\_acc: 97.3200, sparsity: 57.6561

Epoch: 18, train\_acc: 99.2578, val\_acc: 97.9400, sparsity: 57.6561

Epoch: 19, train\_acc: 99.3733, val\_acc: 97.6400, sparsity: 57.6561

Epoch: 20, train\_acc: 99.3089, val\_acc: 98.0400, sparsity: 57.6561

Epoch: 21, train\_acc: 99.3489, val\_acc: 98.2600, sparsity: 57.6561

Epoch: 22, train\_acc: 99.5711, val\_acc: 98.0400, sparsity: 57.6561

Epoch: 23, train\_acc: 99.5378, val\_acc: 98.0400, sparsity: 57.6561

Epoch: 24, train\_acc: 99.6200, val\_acc: 98.2800, sparsity: 57.6561

Epoch: 25, train\_acc: 99.5711, val\_acc: 98.4200, sparsity: 57.6561

Epoch: 26, train\_acc: 99.6067, val\_acc: 98.3400, sparsity: 57.6561

Epoch: 27, train\_acc: 99.6289, val\_acc: 98.3800, sparsity: 57.6561

Epoch: 28, train\_acc: 99.6311, val\_acc: 98.5200, sparsity: 57.6561

Epoch: 29, train\_acc: 99.6622, val\_acc: 97.9600, sparsity: 57.6561

10 trials: score: 0.1418, train\_acc:99.6622, val\_acc:97.9600, test\_acc:90.4300, sparsity:57.6561

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12143350213269685

Epoch: 0, train\_acc: 93.9067, val\_acc: 96.4800, sparsity: 61.5354

Epoch: 1, train\_acc: 93.3778, val\_acc: 95.5600, sparsity: 61.5354

Epoch: 2, train\_acc: 95.1422, val\_acc: 95.1800, sparsity: 61.5354

Epoch: 3, train\_acc: 95.5844, val\_acc: 94.9000, sparsity: 61.5354

Epoch: 4, train\_acc: 95.7089, val\_acc: 95.9200, sparsity: 61.5354

Epoch: 5, train\_acc: 97.7089, val\_acc: 97.3200, sparsity: 61.5354

Epoch: 6, train\_acc: 98.1778, val\_acc: 96.9800, sparsity: 61.5354

Epoch: 7, train\_acc: 98.3267, val\_acc: 97.8000, sparsity: 61.5354

Epoch: 8, train\_acc: 98.3756, val\_acc: 96.9400, sparsity: 61.5354

Epoch: 9, train\_acc: 98.3333, val\_acc: 96.6200, sparsity: 61.5354

Epoch: 10, train\_acc: 98.2889, val\_acc: 97.9200, sparsity: 61.5354

Epoch: 11, train\_acc: 98.4711, val\_acc: 96.7000, sparsity: 61.5354

Epoch: 12, train\_acc: 98.5067, val\_acc: 97.7200, sparsity: 61.5354

Epoch: 13, train\_acc: 98.6311, val\_acc: 96.8800, sparsity: 61.5354

Epoch: 14, train\_acc: 98.5289, val\_acc: 97.6200, sparsity: 61.5354

Epoch: 15, train\_acc: 99.2689, val\_acc: 97.5000, sparsity: 61.5354

Epoch: 16, train\_acc: 99.3689, val\_acc: 98.0400, sparsity: 61.5354

Epoch: 17, train\_acc: 99.3156, val\_acc: 97.8800, sparsity: 61.5354

Epoch: 18, train\_acc: 99.3267, val\_acc: 98.0200, sparsity: 61.5354

Epoch: 19, train\_acc: 99.3133, val\_acc: 98.0600, sparsity: 61.5354

Epoch: 20, train\_acc: 99.3956, val\_acc: 98.0000, sparsity: 61.5354

Epoch: 21, train\_acc: 99.4222, val\_acc: 97.9200, sparsity: 61.5354

Epoch: 22, train\_acc: 99.6244, val\_acc: 98.3600, sparsity: 61.5354

Epoch: 23, train\_acc: 99.6733, val\_acc: 98.1200, sparsity: 61.5354

Epoch: 24, train\_acc: 99.6044, val\_acc: 98.3800, sparsity: 61.5354

Epoch: 25, train\_acc: 99.6889, val\_acc: 98.0600, sparsity: 61.5354

Epoch: 26, train\_acc: 99.6156, val\_acc: 98.2000, sparsity: 61.5354

Epoch: 27, train\_acc: 99.6156, val\_acc: 98.4600, sparsity: 61.5354

Epoch: 28, train\_acc: 99.6933, val\_acc: 98.1400, sparsity: 61.5354

Epoch: 29, train\_acc: 99.6756, val\_acc: 98.3000, sparsity: 61.5354

11 trials: score: 0.1308, train\_acc:99.6756, val\_acc:98.3000, test\_acc:90.5700, sparsity:61.5354

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.12143350213269685

Epoch: 0, train\_acc: 86.1422, val\_acc: 90.5800, sparsity: 75.8952

Epoch: 1, train\_acc: 87.6400, val\_acc: 89.8400, sparsity: 75.8952

Epoch: 2, train\_acc: 90.0178, val\_acc: 88.4000, sparsity: 75.8952

Epoch: 3, train\_acc: 91.2533, val\_acc: 91.4000, sparsity: 75.8952

Epoch: 4, train\_acc: 92.1800, val\_acc: 91.3200, sparsity: 75.8952

Epoch: 5, train\_acc: 94.3556, val\_acc: 93.5800, sparsity: 75.8952

Epoch: 6, train\_acc: 94.5978, val\_acc: 92.8200, sparsity: 75.8952

Epoch: 7, train\_acc: 94.8800, val\_acc: 93.8000, sparsity: 75.8952

Epoch: 8, train\_acc: 94.9689, val\_acc: 92.5400, sparsity: 75.8952

Epoch: 9, train\_acc: 95.2822, val\_acc: 93.9600, sparsity: 75.8952

Epoch: 10, train\_acc: 95.5067, val\_acc: 93.9800, sparsity: 75.8952

Epoch: 11, train\_acc: 95.6156, val\_acc: 94.4000, sparsity: 75.8952

Epoch: 12, train\_acc: 95.8111, val\_acc: 93.6000, sparsity: 75.8952

Epoch: 13, train\_acc: 95.8356, val\_acc: 93.9600, sparsity: 75.8952

Epoch: 14, train\_acc: 95.9000, val\_acc: 94.1800, sparsity: 75.8952

Epoch: 15, train\_acc: 96.8978, val\_acc: 94.7800, sparsity: 75.8952

Epoch: 16, train\_acc: 97.1533, val\_acc: 94.9800, sparsity: 75.8952

Epoch: 17, train\_acc: 97.1000, val\_acc: 95.0000, sparsity: 75.8952

Epoch: 18, train\_acc: 97.2756, val\_acc: 94.6200, sparsity: 75.8952

Epoch: 19, train\_acc: 97.2822, val\_acc: 95.0200, sparsity: 75.8952

Epoch: 20, train\_acc: 97.4311, val\_acc: 95.0000, sparsity: 75.8952

Epoch: 21, train\_acc: 97.4956, val\_acc: 94.7800, sparsity: 75.8952

Epoch: 22, train\_acc: 97.9067, val\_acc: 94.8600, sparsity: 75.8952

Epoch: 23, train\_acc: 97.9378, val\_acc: 94.9800, sparsity: 75.8952

Epoch: 24, train\_acc: 97.9733, val\_acc: 95.2600, sparsity: 75.8952

Epoch: 25, train\_acc: 97.9489, val\_acc: 95.5800, sparsity: 75.8952

Epoch: 26, train\_acc: 98.0556, val\_acc: 95.2600, sparsity: 75.8952

Epoch: 27, train\_acc: 98.1800, val\_acc: 94.9600, sparsity: 75.8952

Epoch: 28, train\_acc: 98.0889, val\_acc: 94.9800, sparsity: 75.8952

Epoch: 29, train\_acc: 98.0978, val\_acc: 95.4200, sparsity: 75.8952

12 trials: score: 0.1165, train\_acc:98.0978, val\_acc:95.4200, test\_acc:89.9500, sparsity:75.8952

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.11651428155358053

Epoch: 0, train\_acc: 93.4644, val\_acc: 95.2000, sparsity: 59.9705

Epoch: 1, train\_acc: 93.0422, val\_acc: 92.6800, sparsity: 59.9705

Epoch: 2, train\_acc: 94.4733, val\_acc: 95.4400, sparsity: 59.9705

Epoch: 3, train\_acc: 95.6311, val\_acc: 93.5600, sparsity: 59.9705

Epoch: 4, train\_acc: 95.6889, val\_acc: 95.1800, sparsity: 59.9705

Epoch: 5, train\_acc: 97.7867, val\_acc: 96.8600, sparsity: 59.9705

Epoch: 6, train\_acc: 97.9756, val\_acc: 97.3000, sparsity: 59.9705

Epoch: 7, train\_acc: 98.1133, val\_acc: 97.0400, sparsity: 59.9705

Epoch: 8, train\_acc: 98.1356, val\_acc: 97.0400, sparsity: 59.9705

Epoch: 9, train\_acc: 98.3222, val\_acc: 97.1600, sparsity: 59.9705

Epoch: 10, train\_acc: 98.3889, val\_acc: 97.3000, sparsity: 59.9705

Epoch: 11, train\_acc: 98.4644, val\_acc: 97.0000, sparsity: 59.9705

Epoch: 12, train\_acc: 98.5756, val\_acc: 97.5400, sparsity: 59.9705

Epoch: 13, train\_acc: 98.4644, val\_acc: 97.4200, sparsity: 59.9705

Epoch: 14, train\_acc: 98.6533, val\_acc: 97.3000, sparsity: 59.9705

Epoch: 15, train\_acc: 99.1378, val\_acc: 97.6600, sparsity: 59.9705

Epoch: 16, train\_acc: 99.2444, val\_acc: 98.1000, sparsity: 59.9705

Epoch: 17, train\_acc: 99.1600, val\_acc: 98.3800, sparsity: 59.9705

Epoch: 18, train\_acc: 99.3844, val\_acc: 97.9200, sparsity: 59.9705

Epoch: 19, train\_acc: 99.4133, val\_acc: 98.3800, sparsity: 59.9705

Epoch: 20, train\_acc: 99.3311, val\_acc: 98.0800, sparsity: 59.9705

Epoch: 21, train\_acc: 99.3511, val\_acc: 98.2000, sparsity: 59.9705

Epoch: 22, train\_acc: 99.5311, val\_acc: 98.4600, sparsity: 59.9705

Epoch: 23, train\_acc: 99.4956, val\_acc: 98.1800, sparsity: 59.9705

Epoch: 24, train\_acc: 99.5578, val\_acc: 98.4200, sparsity: 59.9705

Epoch: 25, train\_acc: 99.5844, val\_acc: 98.1800, sparsity: 59.9705

Epoch: 26, train\_acc: 99.5667, val\_acc: 98.1600, sparsity: 59.9705

Epoch: 27, train\_acc: 99.6533, val\_acc: 98.2000, sparsity: 59.9705

Epoch: 28, train\_acc: 99.6489, val\_acc: 98.5800, sparsity: 59.9705

Epoch: 29, train\_acc: 99.5933, val\_acc: 98.1800, sparsity: 59.9705

13 trials: score: 0.1343, train\_acc:99.5933, val\_acc:98.1800, test\_acc:90.4500, sparsity:59.9705

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.11651428155358053

Epoch: 0, train\_acc: 90.7578, val\_acc: 94.1600, sparsity: 65.6596

Epoch: 1, train\_acc: 91.5889, val\_acc: 90.3800, sparsity: 65.6596

Epoch: 2, train\_acc: 93.4311, val\_acc: 92.2200, sparsity: 65.6596

Epoch: 3, train\_acc: 93.7000, val\_acc: 94.2600, sparsity: 65.6596

Epoch: 4, train\_acc: 94.7000, val\_acc: 92.2600, sparsity: 65.6596

Epoch: 5, train\_acc: 96.7711, val\_acc: 95.8400, sparsity: 65.6596

Epoch: 6, train\_acc: 97.0222, val\_acc: 96.3200, sparsity: 65.6596

Epoch: 7, train\_acc: 97.3689, val\_acc: 95.8800, sparsity: 65.6596

Epoch: 8, train\_acc: 97.1756, val\_acc: 96.4600, sparsity: 65.6596

Epoch: 9, train\_acc: 97.5733, val\_acc: 95.9800, sparsity: 65.6596

Epoch: 10, train\_acc: 97.5689, val\_acc: 96.0800, sparsity: 65.6596

Epoch: 11, train\_acc: 97.6422, val\_acc: 95.9800, sparsity: 65.6596

Epoch: 12, train\_acc: 97.6467, val\_acc: 95.6400, sparsity: 65.6596

Epoch: 13, train\_acc: 97.7178, val\_acc: 95.7600, sparsity: 65.6596

Epoch: 14, train\_acc: 97.8356, val\_acc: 96.1800, sparsity: 65.6596

Epoch: 15, train\_acc: 98.7311, val\_acc: 96.7200, sparsity: 65.6596

Epoch: 16, train\_acc: 98.8244, val\_acc: 97.3800, sparsity: 65.6596

Epoch: 17, train\_acc: 98.8578, val\_acc: 96.5000, sparsity: 65.6596

Epoch: 18, train\_acc: 98.7978, val\_acc: 96.8800, sparsity: 65.6596

Epoch: 19, train\_acc: 98.9333, val\_acc: 97.2000, sparsity: 65.6596

Epoch: 20, train\_acc: 98.8667, val\_acc: 96.2800, sparsity: 65.6596

Epoch: 21, train\_acc: 99.0222, val\_acc: 97.3800, sparsity: 65.6596

Epoch: 22, train\_acc: 99.2444, val\_acc: 97.5000, sparsity: 65.6596

Epoch: 23, train\_acc: 99.3733, val\_acc: 97.3200, sparsity: 65.6596

Epoch: 24, train\_acc: 99.3089, val\_acc: 97.4400, sparsity: 65.6596

Epoch: 25, train\_acc: 99.3267, val\_acc: 97.4800, sparsity: 65.6596

Epoch: 26, train\_acc: 99.3756, val\_acc: 97.6200, sparsity: 65.6596

Epoch: 27, train\_acc: 99.3689, val\_acc: 97.5600, sparsity: 65.6596

Epoch: 28, train\_acc: 99.3556, val\_acc: 97.3800, sparsity: 65.6596

Epoch: 29, train\_acc: 99.3889, val\_acc: 97.5600, sparsity: 65.6596

14 trials: score: 0.1268, train\_acc:99.3889, val\_acc:97.5600, test\_acc:90.4000, sparsity:65.6596

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.11651428155358053

Epoch: 0, train\_acc: 91.6067, val\_acc: 94.2800, sparsity: 66.6363

Epoch: 1, train\_acc: 91.9178, val\_acc: 90.0400, sparsity: 66.6363

Epoch: 2, train\_acc: 93.4556, val\_acc: 93.2000, sparsity: 66.6363

Epoch: 3, train\_acc: 93.9378, val\_acc: 94.1800, sparsity: 66.6363

Epoch: 4, train\_acc: 94.6733, val\_acc: 94.9000, sparsity: 66.6363

Epoch: 5, train\_acc: 96.8867, val\_acc: 95.0800, sparsity: 66.6363

Epoch: 6, train\_acc: 97.0844, val\_acc: 96.0400, sparsity: 66.6363

Epoch: 7, train\_acc: 97.3044, val\_acc: 96.2400, sparsity: 66.6363

Epoch: 8, train\_acc: 97.5422, val\_acc: 96.4200, sparsity: 66.6363

Epoch: 9, train\_acc: 97.6000, val\_acc: 95.9800, sparsity: 66.6363

Epoch: 10, train\_acc: 97.7444, val\_acc: 96.1000, sparsity: 66.6363

Epoch: 11, train\_acc: 97.6778, val\_acc: 96.1800, sparsity: 66.6363

Epoch: 12, train\_acc: 97.9044, val\_acc: 96.0800, sparsity: 66.6363

Epoch: 13, train\_acc: 97.8689, val\_acc: 96.6200, sparsity: 66.6363

Epoch: 14, train\_acc: 97.9800, val\_acc: 95.7400, sparsity: 66.6363

Epoch: 15, train\_acc: 98.7422, val\_acc: 97.5800, sparsity: 66.6363

Epoch: 16, train\_acc: 98.8667, val\_acc: 96.8400, sparsity: 66.6363

Epoch: 17, train\_acc: 98.8644, val\_acc: 97.5600, sparsity: 66.6363

Epoch: 18, train\_acc: 98.8933, val\_acc: 96.7800, sparsity: 66.6363

Epoch: 19, train\_acc: 98.8822, val\_acc: 97.6600, sparsity: 66.6363

Epoch: 20, train\_acc: 98.9289, val\_acc: 97.7200, sparsity: 66.6363

Epoch: 21, train\_acc: 99.0244, val\_acc: 97.5800, sparsity: 66.6363

Epoch: 22, train\_acc: 99.2844, val\_acc: 97.7600, sparsity: 66.6363

Epoch: 23, train\_acc: 99.2644, val\_acc: 97.2400, sparsity: 66.6363

Epoch: 24, train\_acc: 99.3467, val\_acc: 97.6200, sparsity: 66.6363

Epoch: 25, train\_acc: 99.3889, val\_acc: 97.8000, sparsity: 66.6363

Epoch: 26, train\_acc: 99.3622, val\_acc: 97.6600, sparsity: 66.6363

Epoch: 27, train\_acc: 99.3111, val\_acc: 97.3400, sparsity: 66.6363

Epoch: 28, train\_acc: 99.3689, val\_acc: 97.2200, sparsity: 66.6363

Epoch: 29, train\_acc: 99.3422, val\_acc: 97.6200, sparsity: 66.6363

15 trials: score: 0.1221, train\_acc:99.3422, val\_acc:97.6200, test\_acc:90.5400, sparsity:66.6363

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.11651428155358053

Epoch: 0, train\_acc: 94.3511, val\_acc: 95.7400, sparsity: 57.9126

Epoch: 1, train\_acc: 93.7489, val\_acc: 93.3800, sparsity: 57.9126

Epoch: 2, train\_acc: 95.2733, val\_acc: 96.1000, sparsity: 57.9126

Epoch: 3, train\_acc: 95.7022, val\_acc: 95.5800, sparsity: 57.9126

Epoch: 4, train\_acc: 95.8222, val\_acc: 96.6000, sparsity: 57.9126

Epoch: 5, train\_acc: 98.0178, val\_acc: 97.4200, sparsity: 57.9126

Epoch: 6, train\_acc: 98.2667, val\_acc: 97.3000, sparsity: 57.9126

Epoch: 7, train\_acc: 98.4711, val\_acc: 96.3600, sparsity: 57.9126

Epoch: 8, train\_acc: 98.5511, val\_acc: 97.3000, sparsity: 57.9126

Epoch: 9, train\_acc: 98.4911, val\_acc: 97.3000, sparsity: 57.9126

Epoch: 10, train\_acc: 98.6911, val\_acc: 97.7600, sparsity: 57.9126

Epoch: 11, train\_acc: 98.6800, val\_acc: 98.2600, sparsity: 57.9126

Epoch: 12, train\_acc: 98.8311, val\_acc: 96.5200, sparsity: 57.9126

Epoch: 13, train\_acc: 98.6378, val\_acc: 97.5400, sparsity: 57.9126

Epoch: 14, train\_acc: 98.8289, val\_acc: 97.1400, sparsity: 57.9126

Epoch: 15, train\_acc: 99.2933, val\_acc: 98.5600, sparsity: 57.9126

Epoch: 16, train\_acc: 99.4200, val\_acc: 98.1600, sparsity: 57.9126

Epoch: 17, train\_acc: 99.4356, val\_acc: 98.1800, sparsity: 57.9126

Epoch: 18, train\_acc: 99.4267, val\_acc: 98.5000, sparsity: 57.9126

Epoch: 19, train\_acc: 99.5200, val\_acc: 98.1800, sparsity: 57.9126

Epoch: 20, train\_acc: 99.5289, val\_acc: 98.2800, sparsity: 57.9126

Epoch: 21, train\_acc: 99.4822, val\_acc: 98.2000, sparsity: 57.9126

Epoch: 22, train\_acc: 99.7000, val\_acc: 98.3600, sparsity: 57.9126

Epoch: 23, train\_acc: 99.7178, val\_acc: 98.8000, sparsity: 57.9126

Epoch: 24, train\_acc: 99.7489, val\_acc: 98.4400, sparsity: 57.9126

Epoch: 25, train\_acc: 99.7311, val\_acc: 98.2200, sparsity: 57.9126

Epoch: 26, train\_acc: 99.7311, val\_acc: 98.8200, sparsity: 57.9126

Epoch: 27, train\_acc: 99.7711, val\_acc: 98.5600, sparsity: 57.9126

Epoch: 28, train\_acc: 99.7689, val\_acc: 98.6800, sparsity: 57.9126

Epoch: 29, train\_acc: 99.7467, val\_acc: 98.5200, sparsity: 57.9126

16 trials: score: 0.1381, train\_acc:99.7467, val\_acc:98.5200, test\_acc:90.4900, sparsity:57.9126

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.11651428155358053

Epoch: 0, train\_acc: 90.6978, val\_acc: 94.0400, sparsity: 65.4473

Epoch: 1, train\_acc: 91.0044, val\_acc: 91.2800, sparsity: 65.4473

Epoch: 2, train\_acc: 92.6711, val\_acc: 91.6800, sparsity: 65.4473

Epoch: 3, train\_acc: 93.6778, val\_acc: 93.6000, sparsity: 65.4473

Epoch: 4, train\_acc: 94.2089, val\_acc: 93.8600, sparsity: 65.4473

Epoch: 5, train\_acc: 96.3933, val\_acc: 95.2400, sparsity: 65.4473

Epoch: 6, train\_acc: 96.8244, val\_acc: 95.7000, sparsity: 65.4473

Epoch: 7, train\_acc: 96.9711, val\_acc: 95.8200, sparsity: 65.4473

Epoch: 8, train\_acc: 97.0844, val\_acc: 95.8200, sparsity: 65.4473

Epoch: 9, train\_acc: 97.4089, val\_acc: 96.6000, sparsity: 65.4473

Epoch: 10, train\_acc: 97.3444, val\_acc: 95.7600, sparsity: 65.4473

Epoch: 11, train\_acc: 97.2689, val\_acc: 94.8200, sparsity: 65.4473

Epoch: 12, train\_acc: 97.5067, val\_acc: 95.9000, sparsity: 65.4473

Epoch: 13, train\_acc: 97.6133, val\_acc: 95.6400, sparsity: 65.4473

Epoch: 14, train\_acc: 97.8511, val\_acc: 96.6000, sparsity: 65.4473

Epoch: 15, train\_acc: 98.5267, val\_acc: 96.8200, sparsity: 65.4473

Epoch: 16, train\_acc: 98.5911, val\_acc: 96.6400, sparsity: 65.4473

Epoch: 17, train\_acc: 98.6311, val\_acc: 96.5200, sparsity: 65.4473

Epoch: 18, train\_acc: 98.7400, val\_acc: 96.3600, sparsity: 65.4473

Epoch: 19, train\_acc: 98.6511, val\_acc: 96.8200, sparsity: 65.4473

Epoch: 20, train\_acc: 98.6022, val\_acc: 96.3200, sparsity: 65.4473

Epoch: 21, train\_acc: 98.8378, val\_acc: 96.4600, sparsity: 65.4473

Epoch: 22, train\_acc: 99.1000, val\_acc: 96.5600, sparsity: 65.4473

Epoch: 23, train\_acc: 99.0867, val\_acc: 97.2200, sparsity: 65.4473

Epoch: 24, train\_acc: 99.2156, val\_acc: 97.0200, sparsity: 65.4473

Epoch: 25, train\_acc: 99.2244, val\_acc: 96.9400, sparsity: 65.4473

Epoch: 26, train\_acc: 99.2044, val\_acc: 96.9000, sparsity: 65.4473

Epoch: 27, train\_acc: 99.2022, val\_acc: 97.0400, sparsity: 65.4473

Epoch: 28, train\_acc: 99.1644, val\_acc: 96.9000, sparsity: 65.4473

Epoch: 29, train\_acc: 99.2244, val\_acc: 97.2400, sparsity: 65.4473

17 trials: score: 0.1313, train\_acc:99.2244, val\_acc:97.2400, test\_acc:90.2200, sparsity:65.4473

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.11651428155358053

Epoch: 0, train\_acc: 85.8778, val\_acc: 89.9000, sparsity: 69.7375

Epoch: 1, train\_acc: 88.0000, val\_acc: 90.4400, sparsity: 69.7375

Epoch: 2, train\_acc: 90.7289, val\_acc: 90.2000, sparsity: 69.7375

Epoch: 3, train\_acc: 91.5044, val\_acc: 91.1200, sparsity: 69.7375

Epoch: 4, train\_acc: 92.3756, val\_acc: 91.4000, sparsity: 69.7375

Epoch: 5, train\_acc: 94.4378, val\_acc: 93.8800, sparsity: 69.7375

Epoch: 6, train\_acc: 95.0844, val\_acc: 92.7200, sparsity: 69.7375

Epoch: 7, train\_acc: 95.0644, val\_acc: 93.3200, sparsity: 69.7375

Epoch: 8, train\_acc: 95.4267, val\_acc: 94.3800, sparsity: 69.7375

Epoch: 9, train\_acc: 95.4000, val\_acc: 94.0800, sparsity: 69.7375

Epoch: 10, train\_acc: 95.7667, val\_acc: 93.4400, sparsity: 69.7375

Epoch: 11, train\_acc: 95.8467, val\_acc: 94.1000, sparsity: 69.7375

Epoch: 12, train\_acc: 95.8111, val\_acc: 94.9600, sparsity: 69.7375

Epoch: 13, train\_acc: 96.1311, val\_acc: 94.5600, sparsity: 69.7375

Epoch: 14, train\_acc: 96.1311, val\_acc: 94.0200, sparsity: 69.7375

Epoch: 15, train\_acc: 97.1600, val\_acc: 94.9400, sparsity: 69.7375

Epoch: 16, train\_acc: 97.2800, val\_acc: 94.9600, sparsity: 69.7375

Epoch: 17, train\_acc: 97.4356, val\_acc: 95.3200, sparsity: 69.7375

Epoch: 18, train\_acc: 97.3689, val\_acc: 95.0000, sparsity: 69.7375

Epoch: 19, train\_acc: 97.5178, val\_acc: 94.7200, sparsity: 69.7375

Epoch: 20, train\_acc: 97.7467, val\_acc: 94.5800, sparsity: 69.7375

Epoch: 21, train\_acc: 97.8022, val\_acc: 95.2000, sparsity: 69.7375

Epoch: 22, train\_acc: 98.0533, val\_acc: 95.3600, sparsity: 69.7375

Epoch: 23, train\_acc: 98.2000, val\_acc: 95.2000, sparsity: 69.7375

Epoch: 24, train\_acc: 98.1356, val\_acc: 95.4000, sparsity: 69.7375

Epoch: 25, train\_acc: 98.2978, val\_acc: 95.4600, sparsity: 69.7375

Epoch: 26, train\_acc: 98.2356, val\_acc: 95.3000, sparsity: 69.7375

Epoch: 27, train\_acc: 98.2133, val\_acc: 95.7600, sparsity: 69.7375

Epoch: 28, train\_acc: 98.3556, val\_acc: 95.6200, sparsity: 69.7375

Epoch: 29, train\_acc: 98.5089, val\_acc: 95.8000, sparsity: 69.7375

18 trials: score: 0.1328, train\_acc:98.5089, val\_acc:95.8000, test\_acc:89.9600, sparsity:69.7375

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.11651428155358053

Epoch: 0, train\_acc: 91.8111, val\_acc: 93.8600, sparsity: 68.5837

Epoch: 1, train\_acc: 91.3822, val\_acc: 90.9000, sparsity: 68.5837

Epoch: 2, train\_acc: 93.5556, val\_acc: 93.2400, sparsity: 68.5837

Epoch: 3, train\_acc: 94.1600, val\_acc: 93.6600, sparsity: 68.5837

Epoch: 4, train\_acc: 94.5400, val\_acc: 93.7200, sparsity: 68.5837

Epoch: 5, train\_acc: 96.7689, val\_acc: 95.3000, sparsity: 68.5837

Epoch: 6, train\_acc: 97.0111, val\_acc: 95.8200, sparsity: 68.5837

Epoch: 7, train\_acc: 97.2067, val\_acc: 95.8000, sparsity: 68.5837

Epoch: 8, train\_acc: 97.3089, val\_acc: 95.6000, sparsity: 68.5837

Epoch: 9, train\_acc: 97.3578, val\_acc: 96.3000, sparsity: 68.5837

Epoch: 10, train\_acc: 97.5800, val\_acc: 96.0600, sparsity: 68.5837

Epoch: 11, train\_acc: 97.8333, val\_acc: 93.9200, sparsity: 68.5837

Epoch: 12, train\_acc: 97.9067, val\_acc: 96.4200, sparsity: 68.5837

Epoch: 13, train\_acc: 97.7867, val\_acc: 96.7600, sparsity: 68.5837

Epoch: 14, train\_acc: 97.7689, val\_acc: 96.8400, sparsity: 68.5837

Epoch: 15, train\_acc: 98.6711, val\_acc: 96.9000, sparsity: 68.5837

Epoch: 16, train\_acc: 98.7467, val\_acc: 96.6200, sparsity: 68.5837

Epoch: 17, train\_acc: 98.8178, val\_acc: 96.7400, sparsity: 68.5837

Epoch: 18, train\_acc: 98.8844, val\_acc: 96.4600, sparsity: 68.5837

Epoch: 19, train\_acc: 98.8556, val\_acc: 96.9200, sparsity: 68.5837

Epoch: 20, train\_acc: 98.9067, val\_acc: 96.9000, sparsity: 68.5837

Epoch: 21, train\_acc: 98.9467, val\_acc: 97.2200, sparsity: 68.5837

Epoch: 22, train\_acc: 99.2289, val\_acc: 97.4200, sparsity: 68.5837

Epoch: 23, train\_acc: 99.2889, val\_acc: 96.9200, sparsity: 68.5837

Epoch: 24, train\_acc: 99.2578, val\_acc: 97.5000, sparsity: 68.5837

Epoch: 25, train\_acc: 99.3244, val\_acc: 97.4800, sparsity: 68.5837

Epoch: 26, train\_acc: 99.3267, val\_acc: 97.2400, sparsity: 68.5837

Epoch: 27, train\_acc: 99.3844, val\_acc: 97.2400, sparsity: 68.5837

Epoch: 28, train\_acc: 99.3400, val\_acc: 97.2200, sparsity: 68.5837

Epoch: 29, train\_acc: 99.3600, val\_acc: 97.3400, sparsity: 68.5837

19 trials: score: 0.1192, train\_acc:99.3600, val\_acc:97.3400, test\_acc:90.3300, sparsity:68.5837

resume mode: ./pertrain base line/2018.11.08-213504/best.pth.tar

0.11651428155358053

Epoch: 0, train\_acc: 93.0356, val\_acc: 95.4000, sparsity: 61.2959

Epoch: 1, train\_acc: 93.1467, val\_acc: 93.2800, sparsity: 61.2959

Epoch: 2, train\_acc: 94.3511, val\_acc: 93.3800, sparsity: 61.2959

Epoch: 3, train\_acc: 94.8600, val\_acc: 94.4800, sparsity: 61.2959

Epoch: 4, train\_acc: 95.5733, val\_acc: 92.5200, sparsity: 61.2959

Epoch: 5, train\_acc: 97.5244, val\_acc: 96.7800, sparsity: 61.2959

Epoch: 6, train\_acc: 97.5978, val\_acc: 96.6000, sparsity: 61.2959

Epoch: 7, train\_acc: 97.8400, val\_acc: 96.2400, sparsity: 61.2959

Epoch: 8, train\_acc: 97.8711, val\_acc: 96.7000, sparsity: 61.2959

Epoch: 9, train\_acc: 98.2067, val\_acc: 96.8000, sparsity: 61.2959

Epoch: 10, train\_acc: 98.2556, val\_acc: 96.5000, sparsity: 61.2959

Epoch: 11, train\_acc: 98.2400, val\_acc: 96.6800, sparsity: 61.2959

Epoch: 12, train\_acc: 98.1511, val\_acc: 97.2000, sparsity: 61.2959

Epoch: 13, train\_acc: 98.4689, val\_acc: 97.0000, sparsity: 61.2959

Epoch: 14, train\_acc: 98.3889, val\_acc: 96.9000, sparsity: 61.2959

Epoch: 15, train\_acc: 99.0533, val\_acc: 97.4200, sparsity: 61.2959

Epoch: 16, train\_acc: 99.1400, val\_acc: 97.8000, sparsity: 61.2959

Epoch: 17, train\_acc: 99.1489, val\_acc: 97.6000, sparsity: 61.2959

Epoch: 18, train\_acc: 99.2467, val\_acc: 97.5200, sparsity: 61.2959

Epoch: 19, train\_acc: 99.1911, val\_acc: 97.3000, sparsity: 61.2959

Epoch: 20, train\_acc: 99.2244, val\_acc: 98.0200, sparsity: 61.2959

Epoch: 21, train\_acc: 99.2156, val\_acc: 97.1800, sparsity: 61.2959

Epoch: 22, train\_acc: 99.4756, val\_acc: 98.2400, sparsity: 61.2959

Epoch: 23, train\_acc: 99.4956, val\_acc: 98.0000, sparsity: 61.2959

Epoch: 24, train\_acc: 99.6022, val\_acc: 97.8400, sparsity: 61.2959

Epoch: 25, train\_acc: 99.5289, val\_acc: 97.9200, sparsity: 61.2959

Epoch: 26, train\_acc: 99.6044, val\_acc: 97.7800, sparsity: 61.2959

Epoch: 27, train\_acc: 99.5644, val\_acc: 97.6200, sparsity: 61.2959

Epoch: 28, train\_acc: 99.5467, val\_acc: 97.8600, sparsity: 61.2959

Epoch: 29, train\_acc: 99.5911, val\_acc: 97.9400, sparsity: 61.2959

20 trials: score: 0.1337, train\_acc:99.5911, val\_acc:97.9400, test\_acc:90.6500, sparsity:61.2959

{'module.layer2.3.conv2.weight': 0.7267734379110851, 'module.layer2.7.conv1.weight': 0.5779341910908795, 'module.layer2.5.conv1.weight': 0.6531412496484157, 'module.layer1.8.conv1.weight': 0.8995994975880797, 'module.layer1.7.conv2.weight': 0.6993837055278187, 'module.layer1.0.conv2.weight': 0.5742628294285876, 'module.layer3.0.conv2.weight': 0.9613277220698135, 'module.conv1.weight': 0.868803883740578, 'module.layer3.6.conv1.weight': 0.8782668224089363, 'module.layer3.3.conv1.weight': 0.6553787442370609, 'module.layer3.8.conv2.weight': 0.9737636672662044, 'module.layer3.1.conv2.weight': 0.7298743603145674, 'module.layer2.0.conv2.weight': 0.7794632191342894, 'module.layer3.7.conv1.weight': 0.7570075213843027, 'module.layer3.2.conv1.weight': 0.9355775497702745, 'module.layer3.4.conv2.weight': 0.620307351161171, 'module.layer1.0.conv1.weight': 0.8477896580665993, 'module.layer3.3.conv2.weight': 0.9024532705087249, 'module.layer1.1.conv2.weight': 0.6807728689683645, 'module.layer1.1.conv1.weight': 0.3928389083948389, 'module.layer2.2.conv2.weight': 0.8394460478666044, 'module.layer2.4.conv2.weight': 0.8555886011896687, 'module.layer1.3.conv2.weight': 0.5611292898728141, 'module.layer1.3.conv1.weight': 0.8062558499877857, 'module.layer2.6.conv2.weight': 0.9702718678514284, 'module.layer3.1.conv1.weight': 0.6936293405527606, 'module.layer2.8.conv1.weight': 0.5629451734263669, 'module.layer3.7.conv2.weight': 0.8966537495183362, 'module.layer2.0.conv1.weight': 0.542018286462394, 'module.layer1.4.conv1.weight': 0.8087026140548603, 'module.layer2.8.conv2.weight': 0.7945079142230849, 'module.layer2.2.conv1.weight': 0.343402055615396, 'module.layer2.6.conv1.weight': 0.8817922942341387, 'module.layer2.7.conv2.weight': 0.8072366606164094, 'module.layer1.2.conv2.weight': 0.9053310993523338, 'module.layer1.5.conv1.weight': 0.9077947051319173, 'module.layer2.4.conv1.weight': 0.7607497431140058, 'module.layer3.5.conv2.weight': 0.7856835982423418, 'module.layer3.6.conv2.weight': 0.9787732046139399, 'module.layer1.6.conv2.weight': 0.7616170522605499, 'module.layer3.2.conv2.weight': 0.6181596175575413, 'module.layer2.5.conv2.weight': 0.6774692033919217, 'module.layer2.1.conv2.weight': 0.5264969102633357, 'module.layer3.8.conv1.weight': 0.47271998326924786, 'module.layer1.4.conv2.weight': 0.4944399955369618, 'module.layer3.5.conv1.weight': 0.9467420212227442, 'module.layer1.8.conv2.weight': 0.38059644360725653, 'module.layer2.1.conv1.weight': 0.6860971408336184, 'module.layer1.6.conv1.weight': 0.9329860846631677, 'module.layer1.2.conv1.weight': 0.9440618287832385, 'module.layer3.4.conv1.weight': 0.46291991927593334, 'module.layer3.0.conv1.weight': 0.6333724521573465, 'module.layer1.7.conv1.weight': 0.547482128369246, 'module.layer2.3.conv1.weight': 0.8218803690997611, 'module.layer1.5.conv2.weight': 0.6732545833525265}