**ResNet18,** training batch size=**128**, testing bs=**128,** optimizer=**SGD, lr=0.02**, **epoch=6**

+ RandomHorizontalFlip() + RandomCrop(32, padding=4)

num of classes: 10

training on cuda:0

epoch 1, loss 1.0209, train acc 0.649, test acc 0.904, time 56.7 sec

epoch 2, loss 0.0944, train acc 0.943, test acc 0.939, time 56.3 sec

epoch 3, loss 0.0371, train acc 0.966, test acc 0.913, time 55.7 sec

epoch 4, loss 0.0280, train acc 0.965, test acc 0.955, time 57.4 sec

epoch 5, loss 0.0166, train acc 0.975, test acc 0.972, time 58.1 sec

epoch 6, loss 0.0114, train acc 0.979, test acc 0.975, time 58.3 sec

epoch 7, loss 0.0089, train acc 0.981, test acc 0.976, time 59.2 sec

epoch 8, loss 0.0070, train acc 0.983, test acc 0.979, time 59.4 sec

epoch 9, loss 0.0059, train acc 0.983, test acc 0.981, time 59.6 sec

epoch 10, loss 0.0050, train acc 0.984, test acc 0.973, time 59.9 sec

epoch 11, loss 0.0045, train acc 0.985, test acc 0.981, time 60.3 sec

epoch 12, loss 0.0039, train acc 0.986, test acc 0.979, time 59.9 sec

epoch 13, loss 0.0036, train acc 0.985, test acc 0.986, time 60.0 sec

epoch 14, loss 0.0033, train acc 0.986, test acc 0.974, time 60.2 sec

epoch 15, loss 0.0031, train acc 0.986, test acc 0.982, time 60.1 sec

epoch 16, loss 0.0027, train acc 0.986, test acc 0.988, time 60.4 sec

epoch 17, loss 0.0026, train acc 0.986, test acc 0.983, time 60.0 sec

epoch 18, loss 0.0024, train acc 0.986, test acc 0.980, time 60.2 sec

epoch 19, loss 0.0023, train acc 0.986, test acc 0.983, time 60.2 sec

Validation: Accuracy of the network: 98.63333333333334 %

Testing: Accuracy of the network: 98.75 %

Brier before calibration 0.019137366182938702

ECE before calibration: 0.003262893080711332

calibrating...

Closed Brier temperature\_scaling 0.01909370755919046

ECE temperature\_scaling calibration: 0.002260816967487274