**ResNet18,** training batch size=**128**, testing bs=**128,** optimizer=**SGD, lr=0.02**, **epoch=40**

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

OOD accuracy without the "unknown" label: Accuracy of the network: 69.1379840196681 %

testing openmax...

0 1 2 3 4 5 6

Accuracy of the network : 69.1379840196681 %%

Accuracy of the network : 94.92725880551302 %%

threshold is 0.00:

Threshold accuracy openmax calibration: 69.79486785494777 %

Threshold accuracy: 69.795 %

Brier before calibration: 0.4959502122681302

ECE before calibration: 0.20892810748263818

calibrating...

Brier temperature\_scaling calibration: 0.48972575035900795

ECE temperature\_scaling calibration: 0.20180174171668155

threshold is 0.05:

Threshold accuracy openmax calibration: 69.79486785494777 %

Threshold accuracy: 69.795 %

Brier before calibration: 0.4959502122681302

ECE before calibration: 0.20892810748263818

calibrating...

Brier temperature\_scaling calibration: 0.48972575035900795

ECE temperature\_scaling calibration: 0.20180174171668155

threshold is 0.10:

Threshold accuracy openmax calibration: 69.79486785494777 %

Threshold accuracy: 69.795 %

Brier before calibration: 0.4959502122681302

ECE before calibration: 0.20892810748263818

calibrating...

Brier temperature\_scaling calibration: 0.48972575035900795

ECE temperature\_scaling calibration: 0.20180174171668155

threshold is 0.15:

Threshold accuracy openmax calibration: 69.79486785494777 %

Threshold accuracy: 69.795 %

Brier before calibration: 0.4959502122681302

ECE before calibration: 0.20892810748263818

calibrating...

Brier temperature\_scaling calibration: 0.48972575035900795

ECE temperature\_scaling calibration: 0.20180174171668155

threshold is 0.20:

Threshold accuracy openmax calibration: 69.79486785494777 %

Threshold accuracy: 69.799 %

Brier before calibration: 0.4959502122681302

ECE before calibration: 0.20892810748263818

calibrating...

Brier temperature\_scaling calibration: 0.48972575035900795

ECE temperature\_scaling calibration: 0.20180174171668155

threshold is 0.25:

Threshold accuracy openmax calibration: 69.79486785494777 %

Threshold accuracy: 69.829 %

Brier before calibration: 0.4959502122681302

ECE before calibration: 0.20892810748263818

calibrating...

Brier temperature\_scaling calibration: 0.48972575035900795

ECE temperature\_scaling calibration: 0.20180174171668155

threshold is 0.30:

Threshold accuracy openmax calibration: 69.79486785494777 %

Threshold accuracy: 69.964 %

Brier before calibration: 0.4959502122681302

ECE before calibration: 0.20892810748263818

calibrating...

Brier temperature\_scaling calibration: 0.48972575035900795

ECE temperature\_scaling calibration: 0.20180174171668155

threshold is 0.35:

Threshold accuracy openmax calibration: 69.79486785494777 %

Threshold accuracy: 70.402 %

Brier before calibration: 0.4959502122681302

ECE before calibration: 0.21077924281743382

calibrating...

Brier temperature\_scaling calibration: 0.48972575035900795

ECE temperature\_scaling calibration: 0.20407384908778145

threshold is 0.40:

Threshold accuracy openmax calibration: 69.79486785494777 %

Threshold accuracy: 71.128 %

Brier before calibration: 0.4959502122681302

ECE before calibration: 0.21434548621757968

calibrating...

Brier temperature\_scaling calibration: 0.48972575035900795

ECE temperature\_scaling calibration: 0.2079312546933145

threshold is 0.45:

Threshold accuracy openmax calibration: 69.79486785494777 %

Threshold accuracy: 71.935 %

Brier before calibration: 0.4959502122681302

ECE before calibration: 0.21747478824417943

calibrating...

Brier temperature\_scaling calibration: 0.48972575035900795

ECE temperature\_scaling calibration: 0.21204109979906774

threshold is 0.50:

Threshold accuracy openmax calibration: 69.79486785494777 %

Threshold accuracy: 73.098 %

Brier before calibration: 0.4959502122681302

ECE before calibration: 0.22138336973096523

calibrating...

Brier temperature\_scaling calibration: 0.48972575035900795

ECE temperature\_scaling calibration: 0.21580141203932485

threshold is 0.55:

Threshold accuracy openmax calibration: 69.79486785494777 %

Threshold accuracy: 74.186 %

Brier before calibration: 0.4959502122681302

ECE before calibration: 0.2243790013810646

calibrating...

Brier temperature\_scaling calibration: 0.48972575035900795

ECE temperature\_scaling calibration: 0.21863550843456886

threshold is 0.60:

Threshold accuracy openmax calibration: 69.79486785494777 %

Threshold accuracy: 75.280 %

Brier before calibration: 0.4959502122681302

ECE before calibration: 0.2251557626640716

calibrating...

Brier temperature\_scaling calibration: 0.48972575035900795

ECE temperature\_scaling calibration: 0.21961634561703414

threshold is 0.65:

Threshold accuracy openmax calibration: 69.79486785494777 %

Threshold accuracy: 76.448 %

Brier before calibration: 0.4959502122681302

ECE before calibration: 0.22621430129673706

calibrating...

Brier temperature\_scaling calibration: 0.48972575035900795

ECE temperature\_scaling calibration: 0.22001342553263004

threshold is 0.70:

Threshold accuracy openmax calibration: 69.79486785494777 %

Threshold accuracy: 77.589 %

Brier before calibration: 0.4959502122681302

ECE before calibration: 0.22604618264109208

calibrating...

Brier temperature\_scaling calibration: 0.48972575035900795

ECE temperature\_scaling calibration: 0.22033637470823902

threshold is 0.75:

Threshold accuracy openmax calibration: 69.79486785494777 %

Threshold accuracy: 78.607 %

Brier before calibration: 0.4959502122681302

ECE before calibration: 0.22601878252876412

calibrating...

Brier temperature\_scaling calibration: 0.48972575035900795

ECE temperature\_scaling calibration: 0.2201595117178298

threshold is 0.80:

Threshold accuracy openmax calibration: 69.79486785494777 %

Threshold accuracy: 79.694 %

Brier before calibration: 0.4959502122681302

ECE before calibration: 0.22489406024669678

calibrating...

Brier temperature\_scaling calibration: 0.48972575035900795

ECE temperature\_scaling calibration: 0.21941044252565037

threshold is 0.85:

Threshold accuracy openmax calibration: 69.79486785494777 %

Threshold accuracy: 81.058 %

Brier before calibration: 0.4959502122681302

ECE before calibration: 0.22370698762291696

calibrating...

Brier temperature\_scaling calibration: 0.48972575035900795

ECE temperature\_scaling calibration: 0.21779435083554

threshold is 0.90:

Threshold accuracy openmax calibration: 69.79486785494777 %

Threshold accuracy: 82.537 %

Brier before calibration: 0.4959502122681302

ECE before calibration: 0.2218770186411653

calibrating...

Brier temperature\_scaling calibration: 0.48972575035900795

ECE temperature\_scaling calibration: 0.2162163205394441

threshold is 0.95:

Threshold accuracy openmax calibration: 69.79486785494777 %

Threshold accuracy: 83.977 %

Brier before calibration: 0.4959502122681302

ECE before calibration: 0.2198116018608002

calibrating...

Brier temperature\_scaling calibration: 0.48972575035900795

ECE temperature\_scaling calibration: 0.21433221442097158