**EfficientNetv2\_s,** training batch size=**128**, testing bs=**128,** optimizer=**SGD, lr=0.02**, **epoch=80**

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

OOD accuracy without the "unknown" label: Accuracy of the network: 69.38383527965581 %

testing openmax...

0 1 2 3 4 5 6

Accuracy of the network: 69.38383527965581 %

Accuracy of the network: 95.36753445635529 %

threshold is 0.00:

Threshold accuracy openmax calibration: 70.30577750460971 %

Threshold accuracy: 70.306 %

Brier before calibration: 0.4664059787374093

ECE before calibration: 0.18810102026669176

calibrating...

Brier temperature\_scaling calibration: 0.4502230589432532

ECE temperature\_scaling calibration: 0.16565461736115192

threshold is 0.05:

Threshold accuracy openmax calibration: 70.30577750460971 %

Threshold accuracy: 70.306 %

Brier before calibration: 0.4664059787374093

ECE before calibration: 0.18810102026669176

calibrating...

Brier temperature\_scaling calibration: 0.4502230589432532

ECE temperature\_scaling calibration: 0.16565461736115192

threshold is 0.10:

Threshold accuracy openmax calibration: 70.30577750460971 %

Threshold accuracy: 70.306 %

Brier before calibration: 0.4664059787374093

ECE before calibration: 0.18810102026669176

calibrating...

Brier temperature\_scaling calibration: 0.4502230589432532

ECE temperature\_scaling calibration: 0.16565461736115192

threshold is 0.15:

Threshold accuracy openmax calibration: 70.30577750460971 %

Threshold accuracy: 70.306 %

Brier before calibration: 0.4664059787374093

ECE before calibration: 0.18810102026669176

calibrating...

Brier temperature\_scaling calibration: 0.4502230589432532

ECE temperature\_scaling calibration: 0.16565461736115192

threshold is 0.20:

Threshold accuracy openmax calibration: 70.30577750460971 %

Threshold accuracy: 70.317 %

Brier before calibration: 0.4664059787374093

ECE before calibration: 0.18810102026669176

calibrating...

Brier temperature\_scaling calibration: 0.4502230589432532

ECE temperature\_scaling calibration: 0.16565461736115192

threshold is 0.25:

Threshold accuracy openmax calibration: 70.30577750460971 %

Threshold accuracy: 70.459 %

Brier before calibration: 0.4664059787374093

ECE before calibration: 0.18810102026669176

calibrating...

Brier temperature\_scaling calibration: 0.4502230589432532

ECE temperature\_scaling calibration: 0.16565461736115192

threshold is 0.30:

Threshold accuracy openmax calibration: 70.30577750460971 %

Threshold accuracy: 70.790 %

Brier before calibration: 0.4664059787374093

ECE before calibration: 0.18810102026669176

calibrating...

Brier temperature\_scaling calibration: 0.4502230589432532

ECE temperature\_scaling calibration: 0.16565461736115192

threshold is 0.35:

Threshold accuracy openmax calibration: 70.30577750460971 %

Threshold accuracy: 71.420 %

Brier before calibration: 0.4664059787374093

ECE before calibration: 0.19063200009843653

calibrating...

Brier temperature\_scaling calibration: 0.4502230589432532

ECE temperature\_scaling calibration: 0.1679723478198857

threshold is 0.40:

Threshold accuracy openmax calibration: 70.30577750460971 %

Threshold accuracy: 72.430 %

Brier before calibration: 0.4664059787374093

ECE before calibration: 0.19728993109273413

calibrating...

Brier temperature\_scaling calibration: 0.4502230589432532

ECE temperature\_scaling calibration: 0.1781536879243481

threshold is 0.45:

Threshold accuracy openmax calibration: 70.30577750460971 %

Threshold accuracy: 73.540 %

Brier before calibration: 0.4664059787374093

ECE before calibration: 0.2013006714420518

calibrating...

Brier temperature\_scaling calibration: 0.4502230589432532

ECE temperature\_scaling calibration: 0.18318020982396474

threshold is 0.50:

Threshold accuracy openmax calibration: 70.30577750460971 %

Threshold accuracy: 74.954 %

Brier before calibration: 0.4664059787374093

ECE before calibration: 0.2053270907803555

calibrating...

Brier temperature\_scaling calibration: 0.4502230589432532

ECE temperature\_scaling calibration: 0.18848096155724642

threshold is 0.55:

Threshold accuracy openmax calibration: 70.30577750460971 %

Threshold accuracy: 76.648 %

Brier before calibration: 0.4664059787374093

ECE before calibration: 0.20887401650563

calibrating...

Brier temperature\_scaling calibration: 0.4502230589432532

ECE temperature\_scaling calibration: 0.1920449736664906

threshold is 0.60:

Threshold accuracy openmax calibration: 70.30577750460971 %

Threshold accuracy: 77.992 %

Brier before calibration: 0.4664059787374093

ECE before calibration: 0.2117331428035462

calibrating...

Brier temperature\_scaling calibration: 0.4502230589432532

ECE temperature\_scaling calibration: 0.1947900788800146

threshold is 0.65:

Threshold accuracy openmax calibration: 70.30577750460971 %

Threshold accuracy: 79.329 %

Brier before calibration: 0.4664059787374093

ECE before calibration: 0.2130476776338752

calibrating...

Brier temperature\_scaling calibration: 0.4502230589432532

ECE temperature\_scaling calibration: 0.19643416914679038

threshold is 0.70:

Threshold accuracy openmax calibration: 70.30577750460971 %

Threshold accuracy: 80.774 %

Brier before calibration: 0.4664059787374093

ECE before calibration: 0.2143185931477139

calibrating...

Brier temperature\_scaling calibration: 0.4502230589432532

ECE temperature\_scaling calibration: 0.19724140844245439

threshold is 0.75:

Threshold accuracy openmax calibration: 70.30577750460971 %

Threshold accuracy: 82.168 %

Brier before calibration: 0.4664059787374093

ECE before calibration: 0.2144575879554772

calibrating...

Brier temperature\_scaling calibration: 0.4502230589432532

ECE temperature\_scaling calibration: 0.19737604943681653

threshold is 0.80:

Threshold accuracy openmax calibration: 70.30577750460971 %

Threshold accuracy: 83.547 %

Brier before calibration: 0.4664059787374093

ECE before calibration: 0.2141241701966645

calibrating...

Brier temperature\_scaling calibration: 0.4502230589432532

ECE temperature\_scaling calibration: 0.19630850746211054

threshold is 0.85:

Threshold accuracy openmax calibration: 70.30577750460971 %

Threshold accuracy: 84.811 %

Brier before calibration: 0.4664059787374093

ECE before calibration: 0.21266308813353002

calibrating...

Brier temperature\_scaling calibration: 0.4502230589432532

ECE temperature\_scaling calibration: 0.19563086668845692

threshold is 0.90:

Threshold accuracy openmax calibration: 70.30577750460971 %

Threshold accuracy: 85.752 %

Brier before calibration: 0.4664059787374093

ECE before calibration: 0.21108878545403553

calibrating...

Brier temperature\_scaling calibration: 0.4502230589432532

ECE temperature\_scaling calibration: 0.19482515293465993

threshold is 0.95:

Threshold accuracy openmax calibration: 70.30577750460971 %

Threshold accuracy: 85.249 %

Brier before calibration: 0.4664059787374093

ECE before calibration: 0.20968094147563202

calibrating...

Brier temperature\_scaling calibration: 0.4502230589432532

ECE temperature\_scaling calibration: 0.1934082474383241