

# **MedMNIST-EdgeAI v2 — Phase-3 ISIC (HAM-mode)**

2025-10-30 11:47:07

Phase-3 ISIC consolidated evidence (HAM-mode)

Teacher dir: D:\MedMNIST-EdgeAIv2\reports\phase3\_isic\teacher\_isic50

Student dir: D:\MedMNIST-EdgeAIv2\reports\phase3\_isic\student\_effb0\_isic

Student dir: D:\MedMNIST-EdgeAIv2\reports\phase3\_isic\student\_mbv2\_isic

Student dir: D:\MedMNIST-EdgeAIv2\reports\phase3\_isic\student\_resnet18\_isic



# Teacher — Metrics

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**Dir:** D:\MedMNIST-EdgeAlv2\reports\phase3\_isic\teacher\_isic50

**Test Acc:** 0.5000

**Test Loss:** 1.4159

**Temp (T):** 1.0000

**VAL ECE raw/cal:** - / -

**VAL NLL raw/cal:** - / -

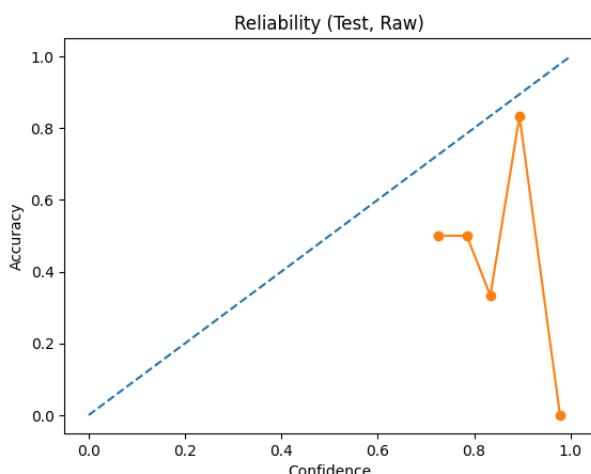
**VAL Brier raw/cal:** - / -

**TEST ECE raw/cal:** 0.3638 / 0.3638

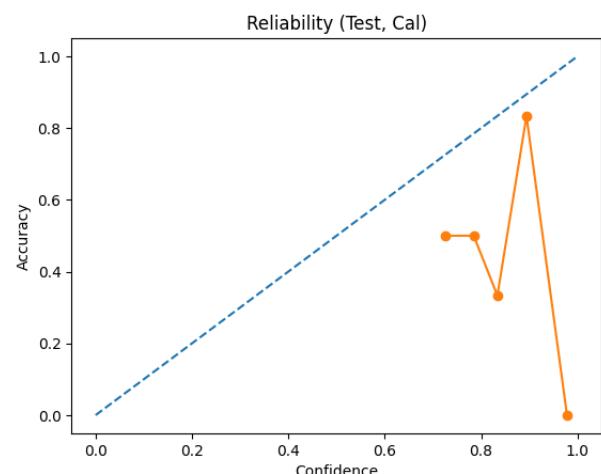
**TEST NLL raw/cal:** 1.4159 / 1.4159

**TEST Brier raw/cal:** 0.7938 / 0.7938

Test Reliability (Raw)



Test Reliability (Cal)



# Teacher — Robustness

2025-10-30 11:47:07

corruption	level	acc	nll	ece	brier	n
gauss	0.1000	0.1102	2.7722	0.3890	1.0883	118
gauss	0.2000	0.1441	2.2447	0.0456	0.8965	118
gauss	0.3000	0.1017	2.2049	0.0608	0.8909	118
jpeg	90	0.6186	1.3688	0.1507	0.5825	118
jpeg	70	0.5593	1.3773	0.1796	0.6125	118
jpeg	50	0.5678	1.3732	0.1470	0.6069	118
contrast	0.8000	0.6780	1.2547	0.1060	0.5153	118
contrast	0.6000	0.6695	1.2991	0.1483	0.5271	118

# Teacher — Efficiency (CPU latency)

2025-10-30 11:47:07

arch	batch	device	lat_ms_p50	lat_ms_p05	lat_ms_p95	peak_cuda_mib
resnet50	1	cpu	52.6344500003688156668499867056.161389999033420			
resnet50	2	cpu	75.74639999984354.08572000067579.270450000240090			
resnet50	4	cpu	119.0523499994718.94852499967905.25442000017010			

# Teacher — Efficiency (GPU latency)

2025-10-30 11:47:07

arch	batch	device	lat_ms_p50	lat_ms_p05	lat_ms_p95	peak_cuda_mib
resnet50	1	cuda	4.0892798900604250269343614578249279598474502561.5595703125			
resnet50	2	cuda	7.1475198268890583114369392395023847295284271255.3447265625			
resnet50	4	cuda	8.66350412368778460056996345528.7215614795684825.5634765625			
resnet50	8	cuda	15.07839965820312500554265975952162002801895160.7197265625			

# Teacher — Efficiency (Memory)

2025-10-30 11:47:07

arch	param_bytes	param_mib	img_size	batch	peak_cuda_mib
resnet50	94105892	89.74637222290039	224	1	110.43408203125

# Student — student\_effb0\_isic — Metrics

2025-10-30 11:47:07

**Dir:** D:\MedMNIST-EdgeAlv2\reports\phase3\_isic\student\_effb0\_isic

**Test Acc:** 0.7500

**Test Loss:** 1.0306

**Temp (T):** 1.0000

**VAL ECE raw/cal:** - / -

**VAL NLL raw/cal:** - / -

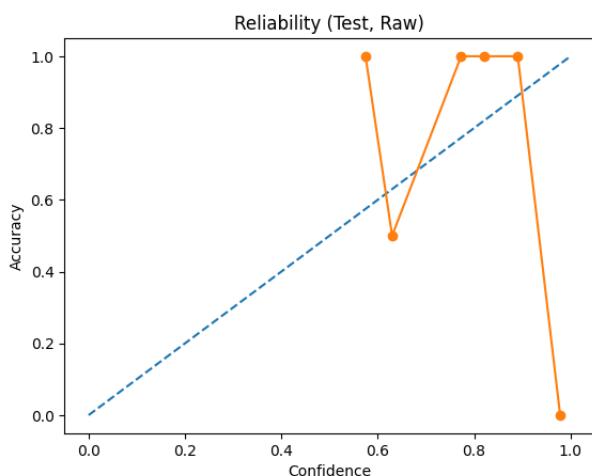
**VAL Brier raw/cal:** - / -

**TEST ECE raw/cal:** 0.3678 / 0.3678

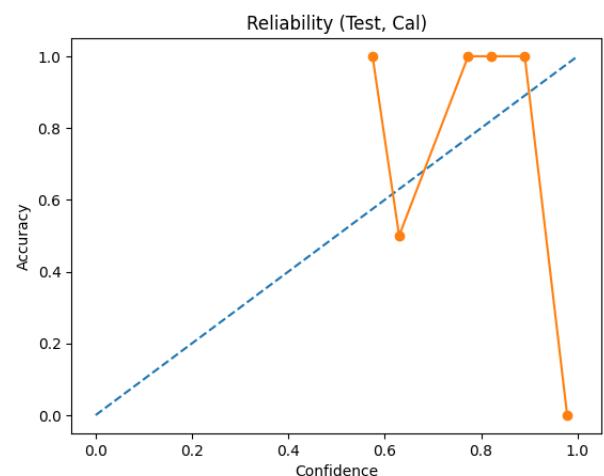
**TEST NLL raw/cal:** 1.0306 / 1.0306

**TEST Brier raw/cal:** 0.5354 / 0.5354

Test Reliability (Raw)



Test Reliability (Cal)



# Student — student\_effb0\_isic — Robustness

2025-10-30 11:47:07

corruption	level	acc	nll	ece	brier	n
gauss	0.1000	0.1271	2.5084	0.1997	0.9686	118
gauss	0.2000	0.1271	2.4236	0.1862	0.9513	118
gauss	0.3000	0.1271	2.4012	0.1642	0.9465	118
jpeg	90	0.6356	1.2078	0.1051	0.5321	118
jpeg	70	0.5932	1.2627	0.1171	0.5606	118
jpeg	50	0.5932	1.3008	0.0618	0.5779	118
contrast	0.8000	0.6695	1.1524	0.0973	0.4973	118
contrast	0.6000	0.6525	1.2067	0.0963	0.5200	118

# Student — student\_effb0\_isic — Efficiency (CPU latency)

2023-10-30 11:47:07

arch	batch	device	lat_ms_p50	lat_ms_p05	lat_ms_p95	peak_cuda_mib
efficientnet_b0	1	cpu	23.526550000497022914050001691076780665000864243			
efficientnet_b0	2	cpu	35.25969999918733.646450000127576102040000809010			
efficientnet_b0	4	cpu	49.79550000007209411194000060257.877084999341605			

# Student — student\_effb0\_isic — Efficiency (GPU latency) 2020-03-30 11:47:07

arch	batch	device	lat_ms_p50	lat_ms_p05	lat_ms_p95	peak_cuda_mib
efficientnet_b0	1	cuda	5.5055360794067	3.83708289146423	34.6491214990615	34.12255859375
efficientnet_b0	2	cuda	5.2234241962432	3.861206657171249	39.100991487503	35.8037109375
efficientnet_b0	4	cuda	5.4364161491394	3.43073873043060	30.950273990631	46.9052734375
efficientnet_b0	8	cuda	7.1260159015655	3.20543360710144	34.9593853950500	39.1083984375

# Student — student\_effb0\_isic — Efficiency (Memory) 2025-10-30 11:47:07

arch	param_bytes	param_mib	img_size	batch	peak_cuda_mib
efficientnet_b0	16076308	15.33156204223632224		1	35.220703125

# Student — student\_mbv2\_isic — Metrics

2025-10-30 11:47:07

**Dir:** D:\MedMNIST-EdgeAlv2\reports\phase3\_isic\student\_mbv2\_isic

**Test Acc:** 0.8125

**Test Loss:** 0.9893

**Temp (T):** 1.0000

**VAL ECE raw/cal:** - / -

**VAL NLL raw/cal:** - / -

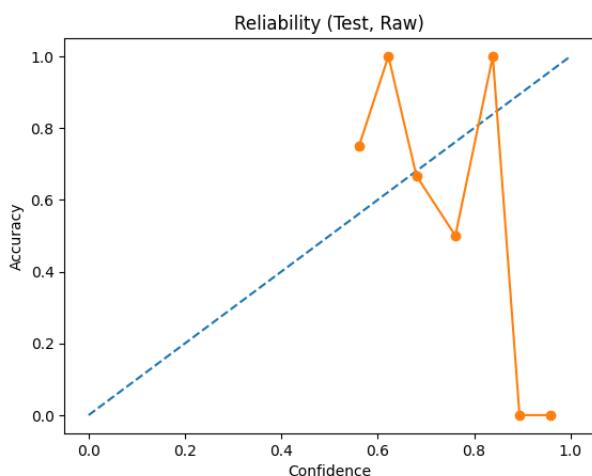
**VAL Brier raw/cal:** - / -

**TEST ECE raw/cal:** 0.3119 / 0.3119

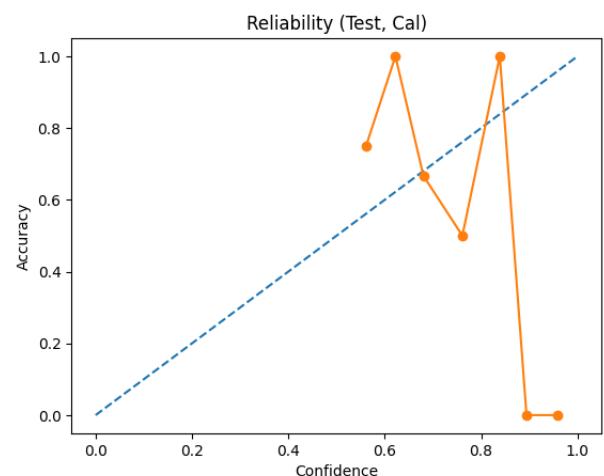
**TEST NLL raw/cal:** 0.9893 / 0.9893

**TEST Brier raw/cal:** 0.6300 / 0.6300

Test Reliability (Raw)



Test Reliability (Cal)



# Student — student\_mbv2\_isic — Robustness

2025-10-30 11:47:07

corruption	level	acc	nll	ece	brier	n
gauss	0.1000	0.2458	2.4310	0.1825	0.9075	118
gauss	0.2000	0.1525	2.6590	0.2023	0.9736	118
gauss	0.3000	0.1441	2.8367	0.3209	1.0451	118
jpeg	90	0.6271	1.1064	0.1345	0.4986	118
jpeg	70	0.6102	1.2385	0.0983	0.5610	118
jpeg	50	0.5169	1.4456	0.0937	0.6373	118
contrast	0.8000	0.6695	1.0339	0.1141	0.4629	118
contrast	0.6000	0.6441	1.1051	0.0360	0.4933	118

# Student — student\_mbv2\_isic — Efficiency (CPU latency)

arch	batch	device	lat_ms_p50	lat_ms_p05	lat_ms_p95	peak_cuda_mib
mobilenet_v2	1	cpu	17.82974999969155561929999101267019110000612065			
mobilenet_v2	2	cpu	24.69784999938046468355000772235338675000512012			
mobilenet_v2	4	cpu	35.22925000015674.89836500120873.205690000246250			

# Student — student\_mbv2\_isic — Efficiency (GPU latency)

2023-07-30 11:47:07

arch	batch	device	lat_ms_p50	lat_ms_p05	lat_ms_p95	peak_cuda_mib
mobilenet_v2	1	cuda	3.1615999937057395	2784101963043364710485935223	41796875	
mobilenet_v2	2	cuda	4.8225278854370320668288111686706813983678817725	6813983678817725	96813983678817725	
mobilenet_v2	4	cuda	3.4820320606231690871007323265876	60429143905641	046875	
mobilenet_v2	8	cuda	5.220351934432953148569703102162407219123840382	2734375	2734375	

# Student — student\_mbv2\_isic — Efficiency (Memory)

2025-10-30 11:47:07

arch	param_bytes	param_mib	img_size	batch	peak_cuda_mib
mobilenet_v2	8941604	8.52737808227539	224	1	28.3876953125

# Student — student\_resnet18\_isic — Metrics

2025-10-30 11:47:07

**Dir:** D:\MedMNIST-EdgeAlv2\reports\phase3\_isic\student\_resnet18\_isic

**Test Acc:** 0.6875

**Test Loss:** 1.1302

**Temp (T):** 1.0000

**VAL ECE raw/cal:** - / -

**VAL NLL raw/cal:** - / -

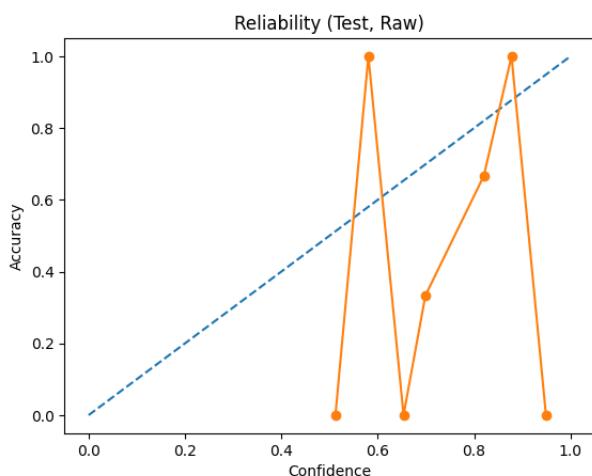
**VAL Brier raw/cal:** - / -

**TEST ECE raw/cal:** 0.4664 / 0.4664

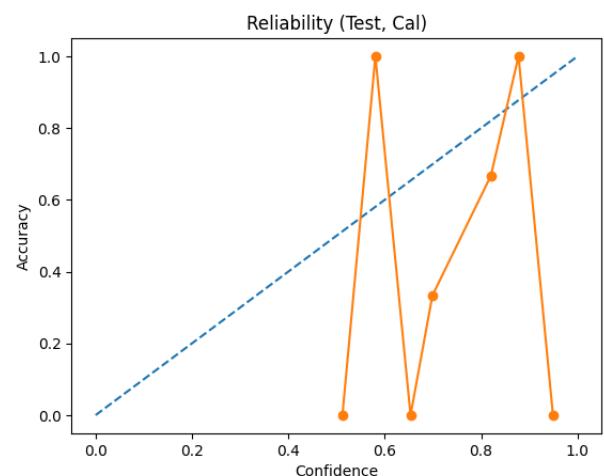
**TEST NLL raw/cal:** 1.1302 / 1.1302

**TEST Brier raw/cal:** 0.7461 / 0.7461

Test Reliability (Raw)



Test Reliability (Cal)



# Student — student\_resnet18\_isic — Robustness

2025-10-30 11:47:07

corruption	level	acc	nll	ece	brier	n
gauss	0.1000	0.3305	2.1779	0.2010	0.8628	118
gauss	0.2000	0.2203	2.4307	0.0818	0.9217	118
gauss	0.3000	0.0339	2.6219	0.2154	0.9734	118
jpeg	90	0.6780	1.0853	0.1745	0.4858	118
jpeg	70	0.6780	1.1352	0.1271	0.5033	118
jpeg	50	0.6610	1.1714	0.1513	0.5103	118
contrast	0.8000	0.6780	1.0850	0.0898	0.4720	118
contrast	0.6000	0.6102	1.1929	0.0643	0.5147	118

## Student — student\_resnet18\_isic — Efficiency (CPU latency) 2023-07-07 17:07

arch	batch	device	lat_ms_p50	lat_ms_p05	lat_ms_p95	peak_cuda_mib
resnet18	1	cpu	20.2760499996657	19.825284998842208295965000354	045	
resnet18	2	cpu	29.85975000046899	0980050013738024499414998939	756	
resnet18	4	cpu	46.84284999984845	91201500106763.990584999479824		

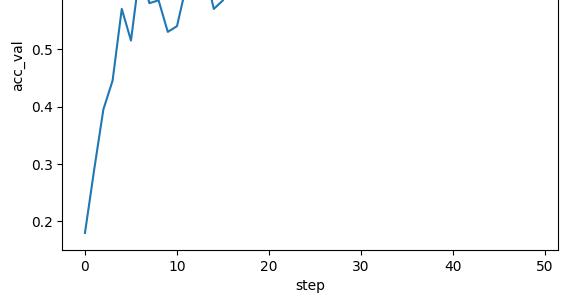
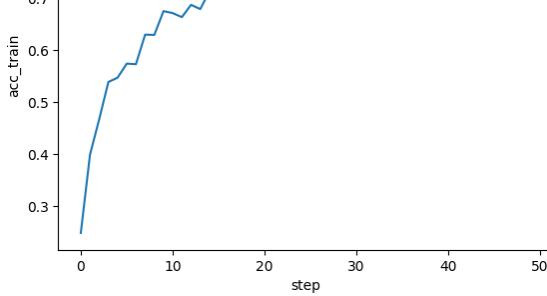
# Student — student\_resnet18\_isic — Efficiency (GPU latency) 2024-01-17 07:07

arch	batch	device	lat_ms_p50	lat_ms_p05	lat_ms_p95	peak_cuda_mib
resnet18	1	cuda	2.436607956886291510528004169404494515120983129	0.53857421875		
resnet18	2	cuda	2.250239968299805740409505367229	0.3036844730370354931640625		
resnet18	4	cuda	3.464191913604736821184062957783530956745147783	4.46923828125		
resnet18	8	cuda	5.451776027679453418946981430054504204988479686	5.55908203125		

# Student — student\_resnet18\_isic — Efficiency (Memory)

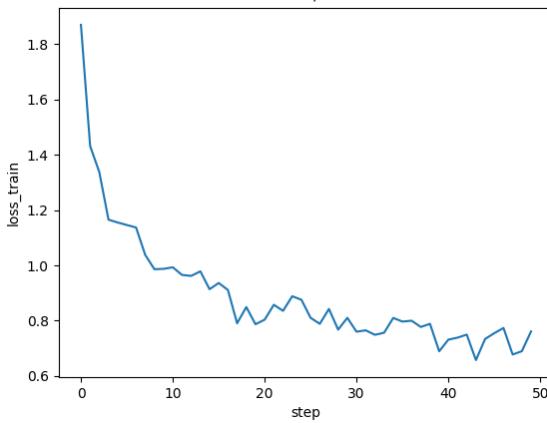
2023-10-30 11:47:07

arch	param_bytes	param_mib	img_size	batch	peak_cuda_mib
resnet18	44724516	42.65262222290039	224	1	62.103515625



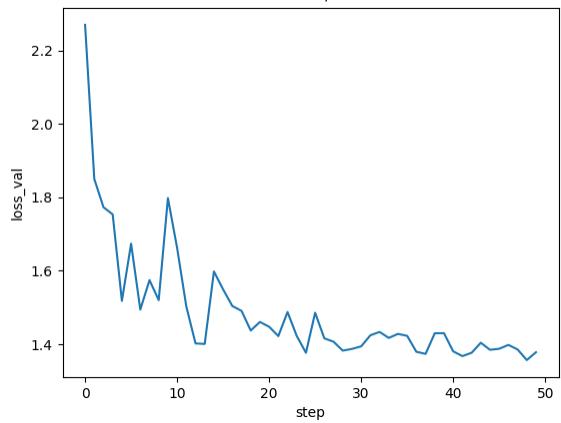
loss\_train.png

tb: loss/train



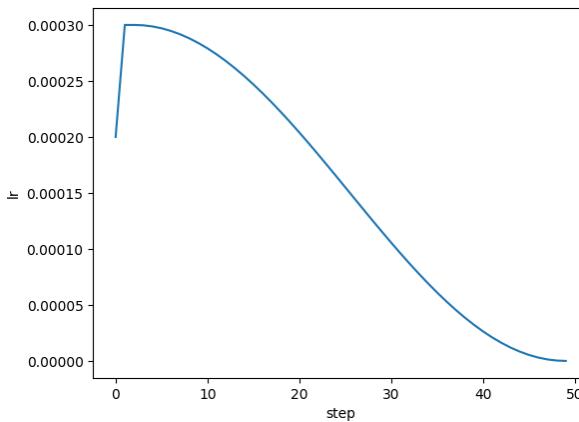
loss\_val.png

tb: loss/val



lr.png

tb: lr



# **tb\_global — TensorBoard**

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*No scalars/images found in D:\MedMNIST-EdgeAI\v2\models\students\isic\_kdat\_all\tb\_global*



6 (train/val/test)

2025-10-30 11:47:12

## VAL

## TEST

