tide test51

Lucy Score = Throughput x Availability x Acc / 10,000. LPD condenses live-fit vs Acc-champ RAM.
[T]=Tween [S]=Split [FP]=FastProxy [L]=Linear [HP]=HeadProxy
running - epoch 1 - lr 0.05 - 2026-09-12 01:06:15 - 0.0.0.0:8080
This epoch 2675 / 122400 cells. Recorded 2675 results. Learning rate 0.05.
Score 0 usually means the cell finished before a Lucy pulse (Acc never sampled). Score is live-fit: Throughput x Availability x Acc.
SGD that blocks serve dies on Availability. SoftAcc is serve-confidence only.
think-race host - tree sweep feeds Tide Lucy reports

Lucy champions (this tide)

Axis	Cell	Score	Soft	Acc	Thru	Avail
hard acc	flee|1x1x1|dense|fp8e4m3|lr=200|cam=1|NormalBP	2.82	90.1	93.3	4.6	65.9
throughput	chase|2x2x2|dense|float64|lr=0.02|cam=1|NormalBP	359.73	14.0	30.1	1529.3	78.1
availability	collect|2x2x2|dense|int64|lr=2|cam=1|NormalBP	1.37	15.0	72.2	2.1	92.0
lucy score	chase|3x3x3|dense|float64|lr=2|cam=1|NormalBP	679.42	18.5	62.3	1359.5	80.2
mobile score (trap)	chase|3x3x3|dense|float64|lr=2|cam=1|NormalBP	679.42	18.5	62.3	1359.5	80.2
acc/sec	chase|3x3x3|dense|fp8e5m2|lr=0.2|cam=2|NormalBP	2.07	13.6	100.0	3.3	62.1

Lucy axis champions (this tide)

Axis	Mode	DType	Arch	Value
hard_acc	sgd	float16	bicameralx2	100.00
throughput	sgd	float64	singlex1	1529.31
availability	sgd	int64	singlex1	92.01
score	sgd	float64	singlex1	679.42
soft_acc	sgd	fp8e4m3	singlex1	90.09
acc_thru	sgd	float64	singlex1	847.55
realtime	sgd	float64	singlex1	1194.46
keep_learn	sgd	fp8e5m2	bicameralx2	33.29
acc_per_sec	sgd	fp8e5m2	bicameralx2	33.29
consistency	sgd	float64	singlex1	100.00
stability	sgd	fp8e5m2	singlex1	100.00
mobile_score	sgd	float64	singlex1	14126.40
lpd	sgd	float64	singlex1	0.28
mspeed	sgd	float64	singlex1	1.00
mavail	sgd	int64	singlex1	1.00
mix	sgd	float64	singlex1	0.90
gold_std	sgd	fp8e4m3	singlex1	12.31

Best settings per train mode

Mode	DType	Format	Score	Soft	Acc	Avail	n
sgd	float64	none	679.4	18.5	62.3	80.2	2675

Best dtype per mode

Mode	Winner dtype	Score	Soft	Acc
sgd	float64	679.4	18.5	62.3

Best mode per dtype

DType	Winner mode	Score	Soft	Acc
float64	sgd	679.4	18.5	62.3
float32	sgd	43.8	21.9	81.5
float16	sgd	12.9	26.1	98.0
bfloat16	sgd	6.3	13.8	100.0

fp8e4m3	sgd	3.1	12.8	100.0
fp8e5m2	sgd	2.3	13.2	100.0
int64	sgd	1.9	19.5	88.9
int32	sgd	1.2	15.9	100.0

Leaderboard (Lucy Score)

#	Cell	Score	Soft	Acc	Thru	Avail
1	chase|3x3x3|dense|float64|lr=2|cam=1|NormalBP	679.4	18.5	62.3	1359.5	80.2
2	chase|2x2x2|dense|float64|lr=2|cam=1|NormalBP	663.5	18.3	61.2	1361.2	79.7
3	chase|1x1x1|dense|float64|lr=2|cam=1|NormalBP	644.4	18.2	59.9	1362.2	78.9
4	flee|1x1x1|dense|float64|lr=2|cam=1|NormalBP	542.9	26.6	97.1	649.5	86.1
5	chase|3x3x3|dense|float64|lr=0.2|cam=1|NormalBP	542.4	15.7	47.1	1458.4	78.9
6	flee|2x2x2|dense|float64|lr=0.02|cam=1|NormalBP	541.7	20.4	83.2	765.3	85.1
7	flee|1x1x1|dense|float64|lr=0.02|cam=1|NormalBP	540.5	19.3	79.4	796.3	85.5
8	chase|1x1x1|dense|float64|lr=0.2|cam=1|NormalBP	534.2	15.6	46.7	1455.5	78.5
9	flee|2x2x2|dense|float64|lr=2|cam=1|NormalBP	532.1	26.5	96.5	642.6	85.8
10	flee|3x3x3|dense|float64|lr=2|cam=1|NormalBP	527.1	26.5	96.5	637.9	85.6
11	chase|2x2x2|dense|float64|lr=0.2|cam=1|NormalBP	507.8	15.3	44.5	1447.6	78.9
12	chase|2x2x2|dense|float64|lr=2|cam=2|NormalBP	495.8	19.1	66.6	1007.1	73.9
13	chase|3x3x3|dense|float64|lr=2|cam=2|NormalBP	487.1	19.5	68.4	984.0	72.3
14	flee|2x2x2|dense|float64|lr=0.2|cam=1|NormalBP	483.5	21.8	80.0	706.3	85.5
15	flee|3x3x3|dense|float64|lr=0.2|cam=1|NormalBP	479.3	21.7	79.5	702.3	85.8
16	chase|1x1x1|dense|float64|lr=2|cam=2|NormalBP	477.7	19.2	66.8	989.2	72.3
17	flee|1x1x1|dense|float64|lr=0.2|cam=1|NormalBP	475.8	21.4	78.9	705.0	85.6
18	flee|3x3x3|dense|float64|lr=0.02|cam=1|NormalBP	458.3	17.1	68.3	781.1	85.9
19	flee|1x1x1|dense|float64|lr=2|cam=2|NormalBP	417.9	26.9	97.4	542.5	79.1
20	flee|2x2x2|dense|float64|lr=2|cam=2|NormalBP	417.6	27.1	97.5	543.0	78.9

Leaderboard (SoftAcc)

#	Cell	Score	Soft	Acc	Thru	Avail
1	flee|2x2x2|dense|float64|lr=2|cam=2|NormalBP	417.6	27.1	97.5	543.0	78.9
2	flee|1x1x1|dense|float64|lr=2|cam=2|NormalBP	417.9	26.9	97.4	542.5	79.1
3	flee|3x3x3|dense|float64|lr=2|cam=2|NormalBP	409.8	26.8	97.1	534.1	79.0
4	flee|1x1x1|dense|float64|lr=2|cam=1|NormalBP	542.9	26.6	97.1	649.5	86.1
5	flee|3x3x3|dense|float64|lr=2|cam=1|NormalBP	527.1	26.5	96.5	637.9	85.6
6	flee|2x2x2|dense|float64|lr=2|cam=1|NormalBP	532.1	26.5	96.5	642.6	85.8
7	flee|3x3x3|dense|float64|lr=0.2|cam=3|NormalBP	331.7	24.7	90.0	500.4	73.7
8	flee|1x1x1|dense|float64|lr=0.2|cam=2|NormalBP	402.8	23.6	86.0	594.4	78.8
9	flee|2x2x2|dense|float64|lr=0.2|cam=2|NormalBP	399.5	23.5	85.6	593.6	78.6
10	flee|3x3x3|dense|float64|lr=0.2|cam=2|NormalBP	379.7	23.2	85.1	570.7	78.2
11	flee|2x2x2|dense|float64|lr=0.2|cam=1|NormalBP	483.5	21.8	80.0	706.3	85.5
12	flee|3x3x3|dense|float64|lr=0.2|cam=1|NormalBP	479.3	21.7	79.5	702.3	85.8
13	flee|1x1x1|dense|float64|lr=0.2|cam=1|NormalBP	475.8	21.4	78.9	705.0	85.6
14	flee|2x2x2|dense|float64|lr=0.02|cam=1|NormalBP	541.7	20.4	83.2	765.3	85.1
15	chase|3x3x3|dense|float64|lr=2|cam=3|NormalBP	395.6	20.0	71.6	784.1	70.5
16	flee|1x1x1|dense|float64|lr=0.02|cam=2|NormalBP	390.3	19.9	76.3	647.5	79.0
17	chase|1x1x1|dense|float64|lr=2|cam=3|NormalBP	396.6	19.8	71.0	794.5	70.3
18	chase|2x2x2|dense|float64|lr=2|cam=3|NormalBP	394.1	19.6	69.6	804.3	70.4
19	chase|3x3x3|dense|float64|lr=2|cam=2|NormalBP	487.1	19.5	68.4	984.0	72.3
20	flee|1x1x1|dense|float64|lr=0.02|cam=1|NormalBP	540.5	19.3	79.4	796.3	85.5

Leaderboard (hard Acc)

#	Cell	Score	Soft	Acc	Thru	Avail
1	flee|2x2x2|dense|float64|lr=2|cam=2|NormalBP	417.6	27.1	97.5	543.0	78.9
2	flee|1x1x1|dense|float64|lr=2|cam=2|NormalBP	417.9	26.9	97.4	542.5	79.1
3	flee|3x3x3|dense|float64|lr=2|cam=2|NormalBP	409.8	26.8	97.1	534.1	79.0
4	flee|1x1x1|dense|float64|lr=2|cam=1|NormalBP	542.9	26.6	97.1	649.5	86.1
5	flee|3x3x3|dense|float64|lr=2|cam=1|NormalBP	527.1	26.5	96.5	637.9	85.6
6	flee|2x2x2|dense|float64|lr=2|cam=1|NormalBP	532.1	26.5	96.5	642.6	85.8
7	flee|3x3x3|dense|float64|lr=0.2|cam=3|NormalBP	331.7	24.7	90.0	500.4	73.7
8	flee|1x1x1|dense|float64|lr=0.2|cam=2|NormalBP	402.8	23.6	86.0	594.4	78.8
9	flee|2x2x2|dense|float64|lr=0.2|cam=2|NormalBP	399.5	23.5	85.6	593.6	78.6
10	flee|3x3x3|dense|float64|lr=0.2|cam=2|NormalBP	379.7	23.2	85.1	570.7	78.2
11	flee|2x2x2|dense|float64|lr=0.02|cam=1|NormalBP	541.7	20.4	83.2	765.3	85.1
12	flee|2x2x2|dense|float64|lr=20|cam=1|NormalBP	398.7	0.7	80.8	574.2	85.9
13	flee|2x2x2|dense|float64|lr=0.2|cam=1|NormalBP	483.5	21.8	80.0	706.3	85.5
14	flee|3x3x3|dense|float64|lr=0.2|cam=1|NormalBP	479.3	21.7	79.5	702.3	85.8
15	flee|1x1x1|dense|float64|lr=0.02|cam=1|NormalBP	540.5	19.3	79.4	796.3	85.5
16	flee|1x1x1|dense|float64|lr=0.2|cam=1|NormalBP	475.8	21.4	78.9	705.0	85.6
17	flee|1x1x1|dense|float64|lr=0.02|cam=2|NormalBP	390.3	19.9	76.3	647.5	79.0
18	flee|1x1x1|dense|float64|lr=200|cam=1|NormalBP	343.6	0.2	75.6	528.9	85.9
19	flee|3x3x3|dense|float64|lr=200|cam=1|NormalBP	332.2	0.3	74.5	517.4	86.2
20	chase|3x3x3|dense|float64|lr=2|cam=3|NormalBP	395.6	20.0	71.6	784.1	70.5

Top scores



Top scores



Best settings per mode



Mean Score by train mode



Mean hard Acc by train mode



Mean SoftAcc by train mode



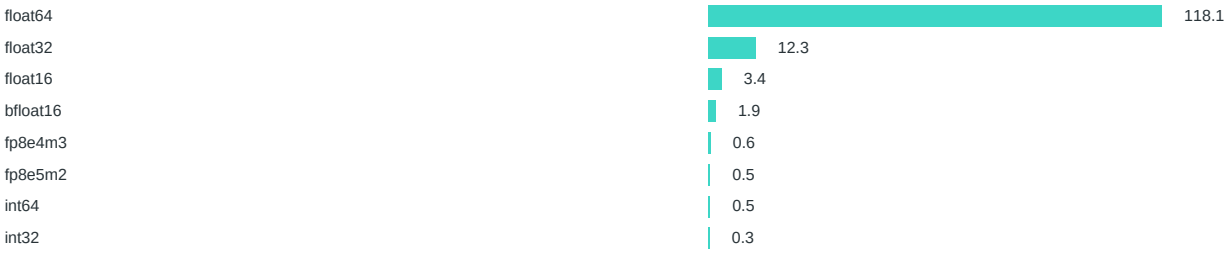
Mean Availability by train mode



Mean Throughput by train mode



Mean Score by dtype



Mean hard Acc by dtype



Mean Score by arch

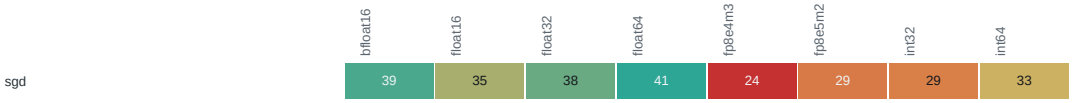


Honesty - mean Score, every mode x dtype

Honesty - mean Score, every mode x dtype



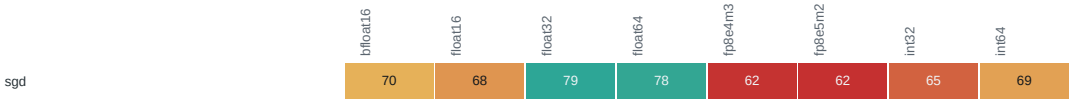
Honesty - mean hard Acc, every mode x dtype



Honesty - mean SoftAcc, every mode x dtype



Honesty - mean Avail, every mode x dtype



Mean Score, every mode x arch



Mean hard Acc, every mode x arch

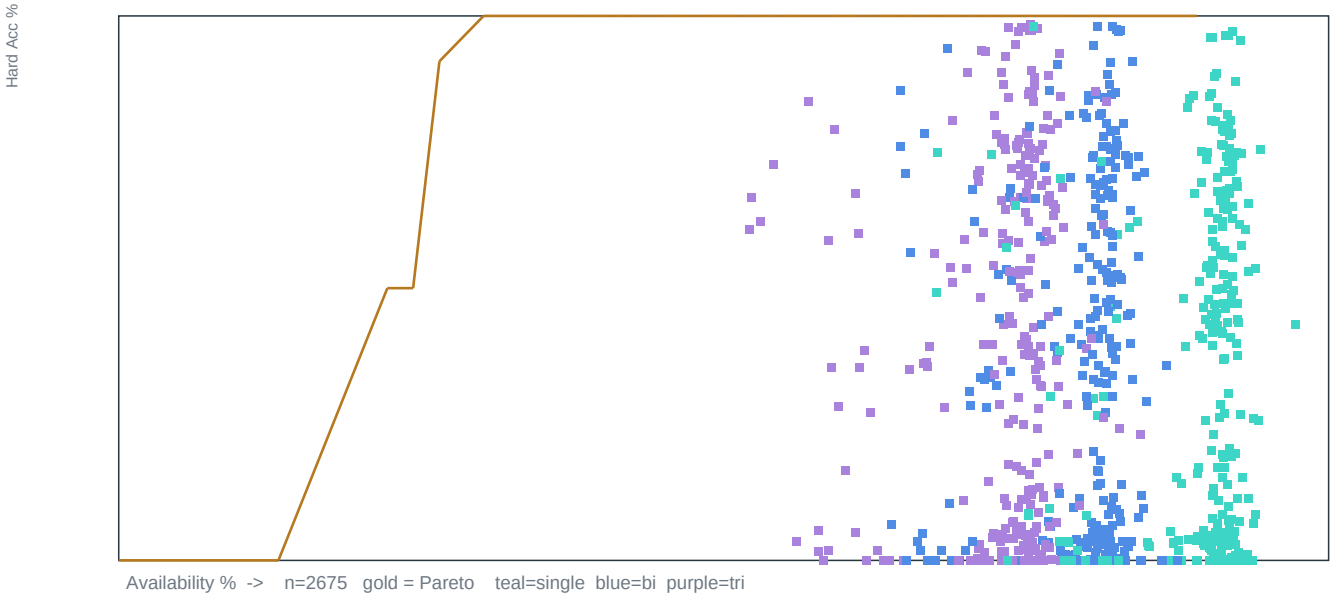
Mean hard Acc, every mode x arch



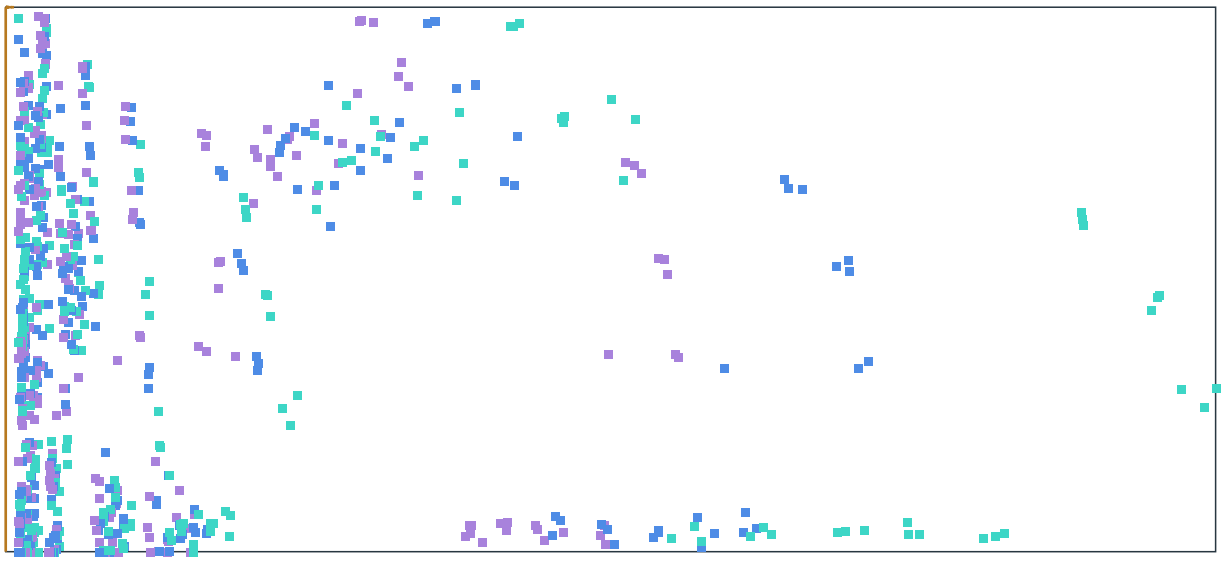
Mean Avail, every mode x arch



Pillars - Availability vs hard Acc

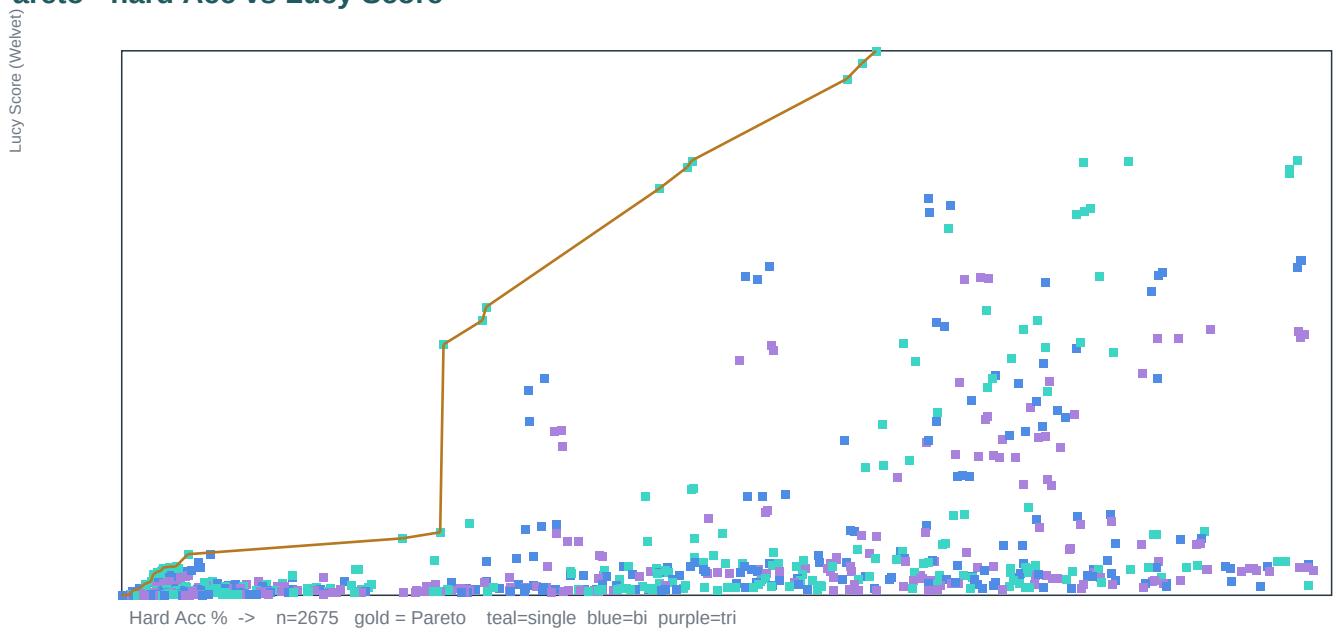


Pillars - Throughput vs hard Acc

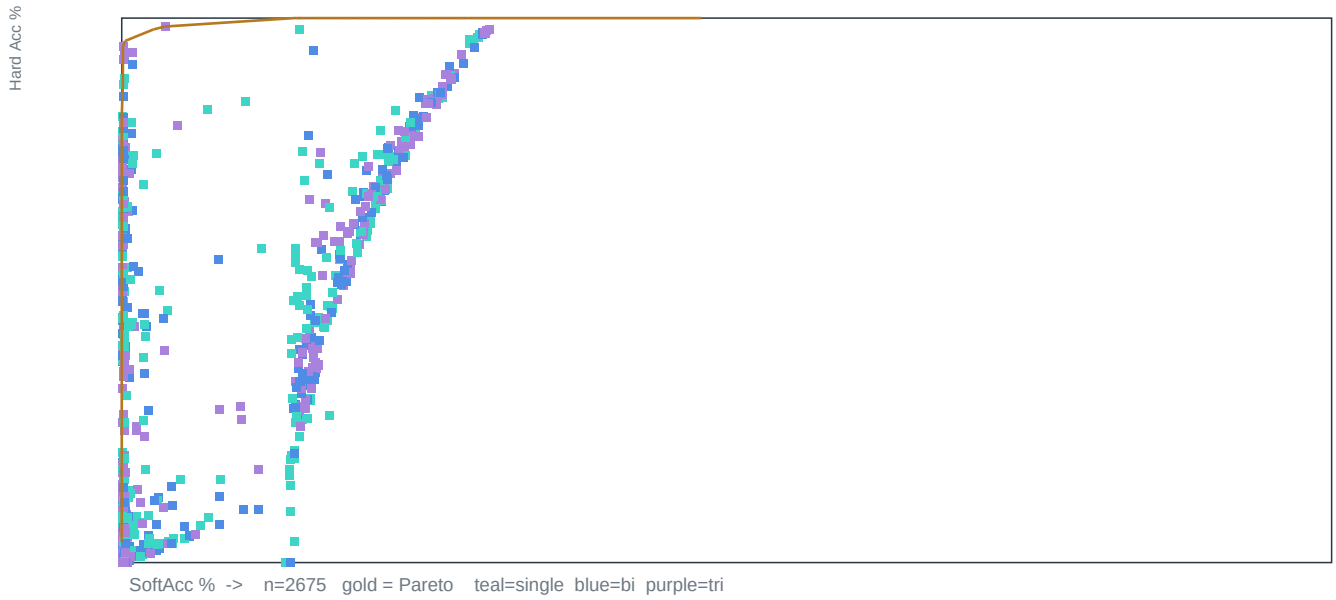



Throughput /s -> n=2675 gold = Pareto teal=single blue=bi purple=tri
Hard Acc %

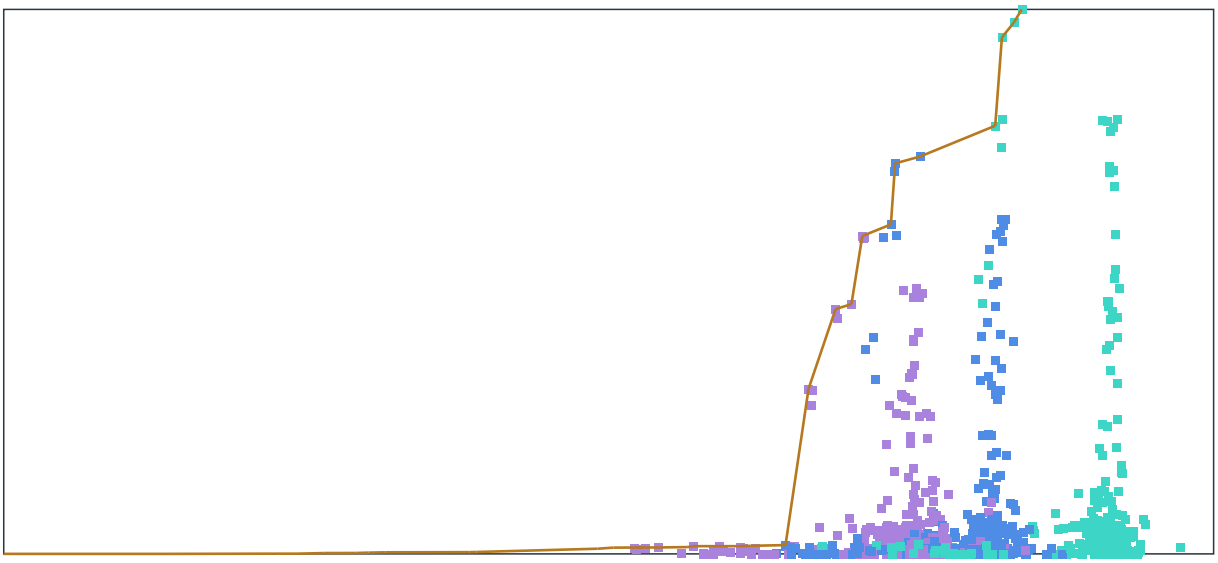
Pareto - hard Acc vs Lucy Score



SoftAcc (serve-confidence) vs hard Acc



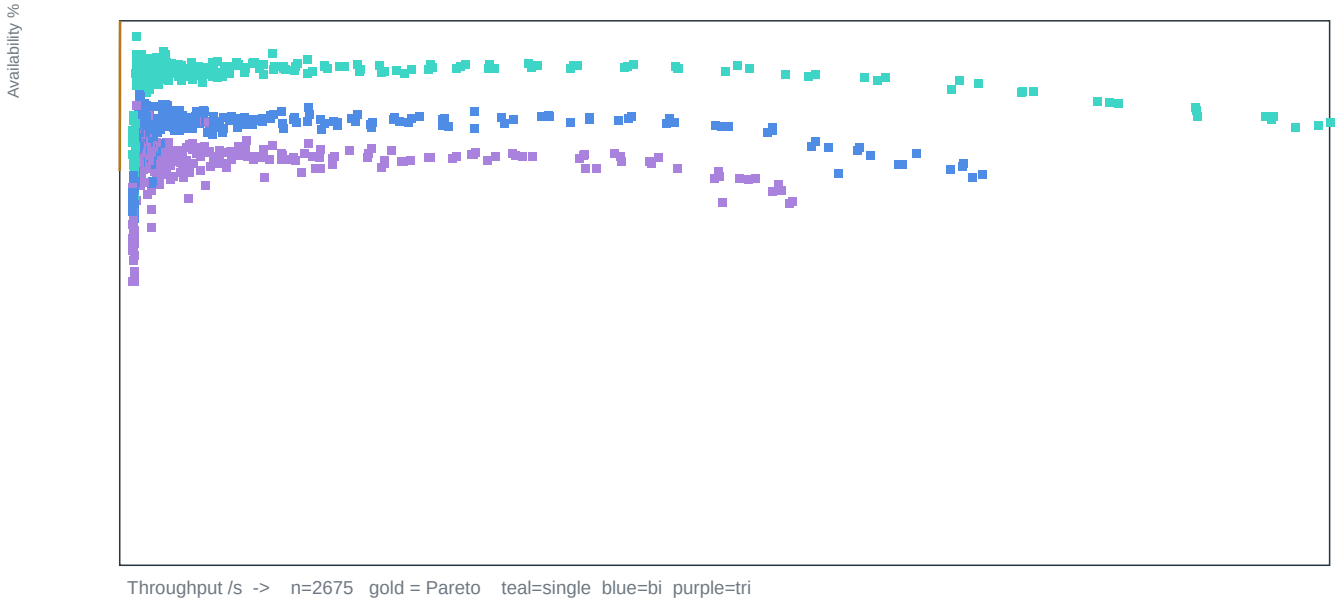
Avail vs Lucy Score (duty clock)



Availability % -> n=2675 gold = Pareto teal=single blue=bi purple=tri

Lucy Score

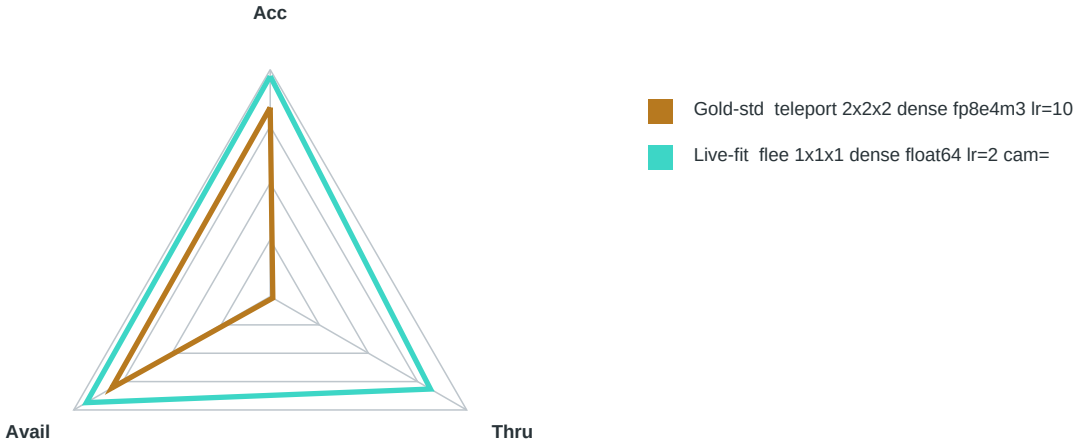
Pillars - Throughput vs Availability



Consciousness - Acc, Throughput, Availability

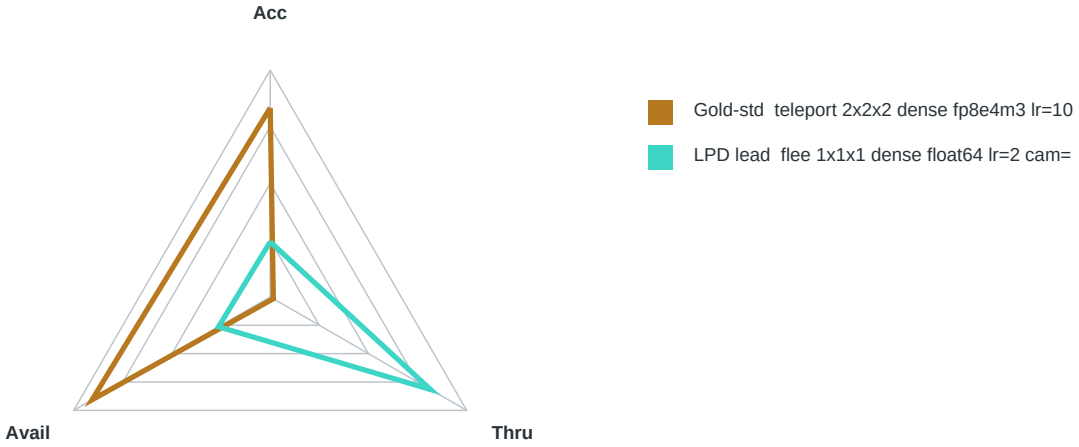
Synthetic organism / Lucy density: can the net run and train at the same time in a small box. Lucy Score = Throughput x Availability x Acc / 10,000 (hard Acc; SoftAcc is serve-confidence only). SGD that blocks serve dies on Availability. Q = geomean Acc/Thru/Avail vs learner peaks (traps do not set Thru/Avail). LPD = Q x shrink vs Acc-champ RAM; 0 unless Acc keep >=70%. Gold = all 3 pillars >=80% at <=20% Acc-champ RAM. Gold-std = Acc >=80% plus Thru or Avail, then smallest then fastest. Score/MiB is the binary trap.
Acc champ collect|3x3x3|dense|fp8e4m3|lr=20|cam=2|NormalBP Acc 100.0 Thru 4 Avail 67.9% 15.1 KiB (RAM reference)
Lucy Score champ (T x Avail x Acc) chase|3x3x3|dense|float64|lr=2|cam=1|NormalBP Score 679.4 Acc 62.3 Soft 18 49.2 KiB
Live-fit champ (best Q) flee|1x1x1|dense|float64|lr=2|cam=1|NormalBP Acc 97.1 Thru 650 Avail 86.1% 49.2 KiB
Gold-std (2+ pillars, Acc keep >= 80%, then smallest then fastest): teleport|2x2x2|dense|fp8e4m3|lr=10000|cam=1|NormalBP mode sgd Acc 83.3 Thru 3 12.3 KiB
Board fastest chase|2x2x2|dense|float64|lr=0.02|cam=1|NormalBP Thru 1529 (traps may own this) Best availability collect|2x2x2|dense|int64|lr=2|cam=1|NormalBP 92.0%
Learner Thru peak 796 learner Avail peak 92.0%

Consciousness radar - Acc / Thru / Avail vs learner peaks



Memory density radar - same pillars x shrink vs Acc champ (traps sit at origin)

Memory density radar - same pillars x shrink vs Acc champ (traps sit at origin)



No gold cell yet. Need all three pillars at 80% of learner peaks in one fifth of Acc-champ RAM.

Gold-standard train modes - 2+ pillars, Acc keep >= 80%, smallest then fastest

Mode	n	Acc	KiB	Thru	Cell
sgd	107	100.0	12.3	765	teleport 2x2x2 dense fp8e4m3 lr=10000 cam=1 NormalBP / flee 2x2~

Lucy density (LPD) - Q x shrink vs Acc-champ RAM; 0 if Acc keep < 70%

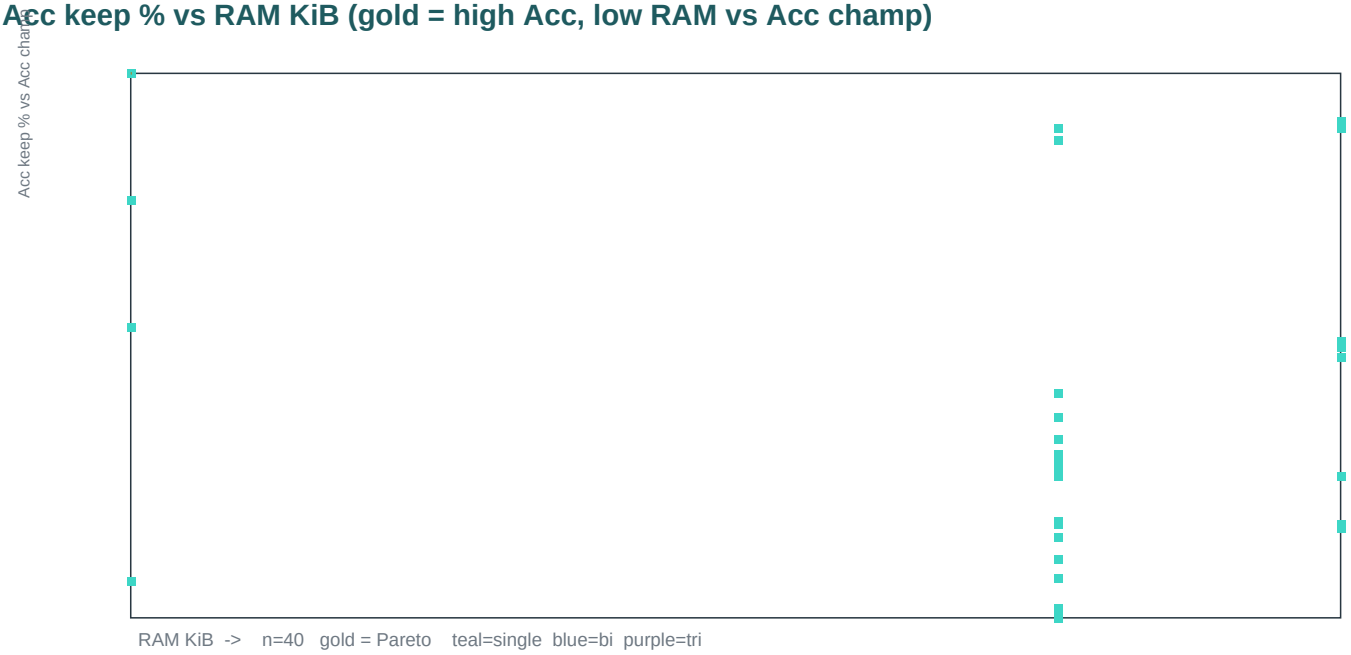
Band	Cell	Acc%	Thru%	Avail%	Q%	RAM%	xSmall	LPD	Acc	Thru	KiB
keep	flee 1x1x1 dense float64 lr=2 cam=1 NormalBP	97	82	94	90	326	0.3	0.28	97.1	650	49.2
keep	flee 2x2x2 dense float64 lr=0.02 cam=1 NormalBP	83	96	92	90	326	0.3	0.28	83.2	765	49.2
-	flee 1x1x1 dense float64 lr=0.02 cam=1 NormalBP	79	100	93	90	326	0.3	0.28	79.4	796	49.2
keep	flee 2x2x2 dense float64 lr=2 cam=1 NormalBP	96	81	93	90	326	0.3	0.28	96.5	643	49.2
keep	flee 3x3x3 dense float64 lr=2 cam=1 NormalBP	96	80	93	90	326	0.3	0.28	96.5	638	49.2
keep	flee 2x2x2 dense float64 lr=0.2 cam=1 NormalBP	80	89	93	87	326	0.3	0.27	80.0	706	49.2
-	flee 3x3x3 dense float64 lr=0.2 cam=1 NormalBP	80	88	93	87	326	0.3	0.27	79.5	702	49.2
-	flee 1x1x1 dense float64 lr=0.2 cam=1 NormalBP	79	89	93	87	326	0.3	0.27	78.9	705	49.2
keep	flee 2x2x2 dense float64 lr=20 cam=1 NormalBP	81	72	93	82	326	0.3	0.25	80.8	574	49.2
-	flee 1x1x1 dense float64 lr=20 cam=1 NormalBP	71	73	93	79	326	0.3	0.24	71.4	579	49.2
-	flee 1x1x1 dense float64 lr=200 cam=1 NormalBP	76	66	93	78	326	0.3	0.24	75.6	529	49.2
-	flee 3x3x3 dense float64 lr=200 cam=1 NormalBP	75	65	94	77	326	0.3	0.24	74.5	517	49.2
-	flee 1x1x1 dense float64 lr=1000 cam=1 NormalBP	79	59	93	76	326	0.3	0.23	79.2	467	49.2
-	flee 2x2x2 dense float64 lr=1000 cam=1 NormalBP	76	60	93	75	326	0.3	0.23	76.3	474	49.2
keep	flee 2x2x2 dense float64 lr=10000 cam=1 NormalBP	82	54	93	74	326	0.3	0.23	82.0	431	49.2
-	flee 3x3x3 dense float64 lr=1000 cam=1 NormalBP	74	59	94	74	326	0.3	0.23	73.5	468	49.2
-	flee 1x1x1 dense float64 lr=10000 cam=1 NormalBP	72	55	94	72	326	0.3	0.22	71.9	438	49.2
-	flee 3x3x3 dense float64 lr=10000 cam=1 NormalBP	72	53	93	71	326	0.3	0.22	71.5	426	49.2
-	flee 3x3x3 dense float64 lr=1e+06 cam=1 NormalB~	76	49	93	70	326	0.3	0.22	76.5	390	49.2
keep	flee 1x1x1 dense float64 lr=2 cam=2 NormalBP	97	68	86	83	400	0.2	0.21	97.4	542	60.5

Consciousness rank - Q = geomean Acc/Thru/Avail keep

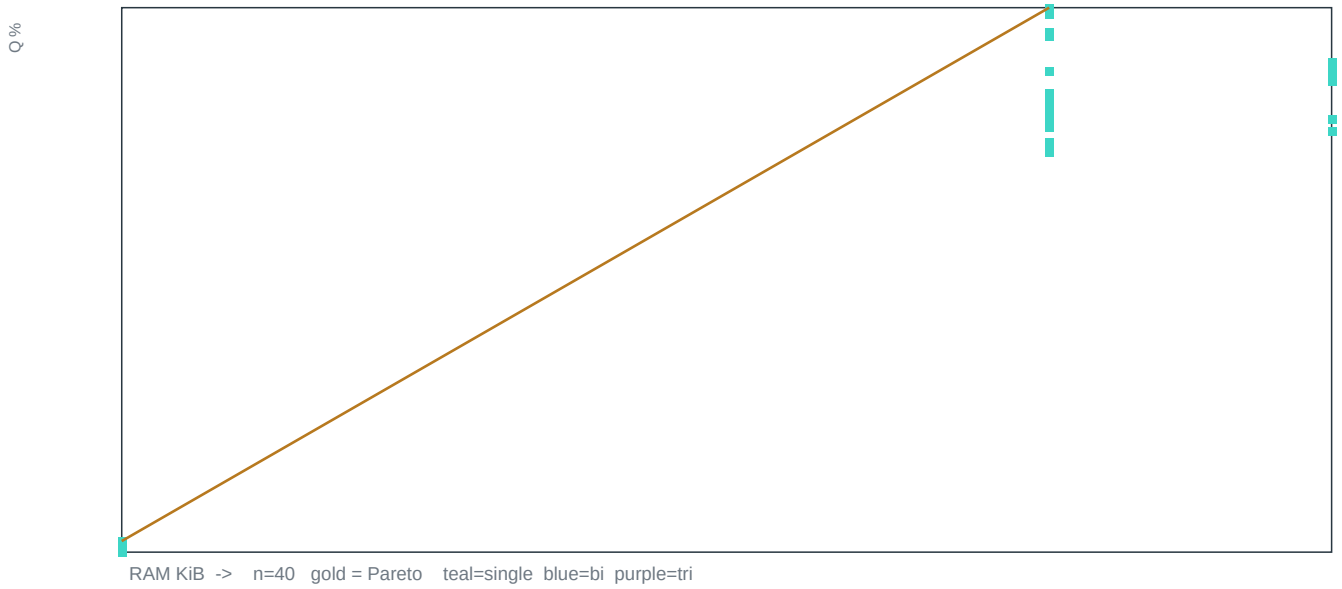
Band	Cell	Acc%	Thru%	Avail%	Q%	LPD	Thru	Avail
keep	flee 1x1x1 dense float64 lr=2 cam=1 NormalBP	97	82	94	90	0.28	650	86.1
keep	flee 2x2x2 dense float64 lr=0.02 cam=1 NormalBP	83	96	92	90	0.28	765	85.1
-	flee 1x1x1 dense float64 lr=0.02 cam=1 NormalBP	79	100	93	90	0.28	796	85.5
keep	flee 2x2x2 dense float64 lr=2 cam=1 NormalBP	96	81	93	90	0.28	643	85.8

keep	flee 3x3x3 dense float64 lr=2 cam=1 NormalBP	96	80	93	90	0.28	638	85.6
keep	flee 2x2x2 dense float64 lr=0.2 cam=1 NormalBP	80	89	93	87	0.27	706	85.5
-	flee 3x3x3 dense float64 lr=0.2 cam=1 NormalBP	80	88	93	87	0.27	702	85.8
-	flee 1x1x1 dense float64 lr=0.2 cam=1 NormalBP	79	89	93	87	0.27	705	85.6
keep	flee 1x1x1 dense float64 lr=2 cam=2 NormalBP	97	68	86	83	0.21	542	79.1
keep	flee 2x2x2 dense float64 lr=2 cam=2 NormalBP	97	68	86	83	0.21	543	78.9

Acc keep % vs RAM KiB (gold = high Acc, low RAM vs Acc champ)



Q% vs RAM KiB (gold = high consciousness, low RAM)



Q% vs shrink vs Acc champ (gold = upper right)

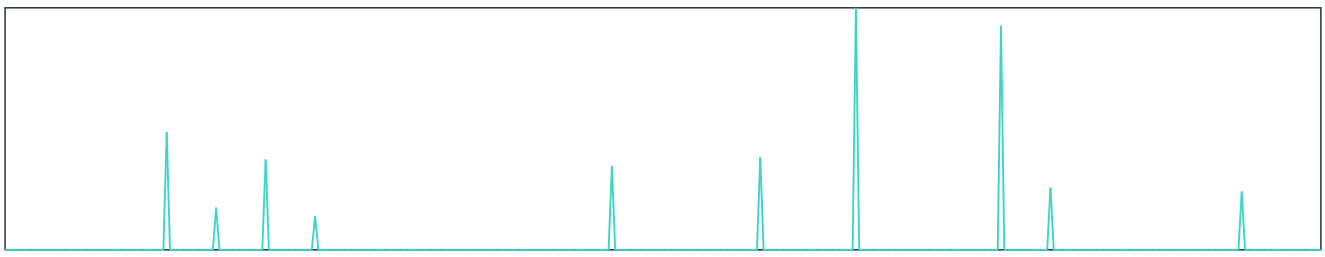
Q% vs shrink vs Acc champ (gold = upper right)



Top Lucy density (LPD)

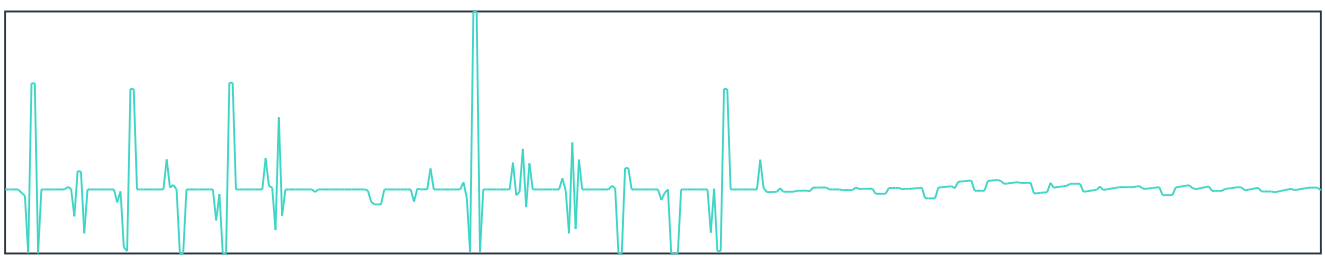


Live pulse (Score)



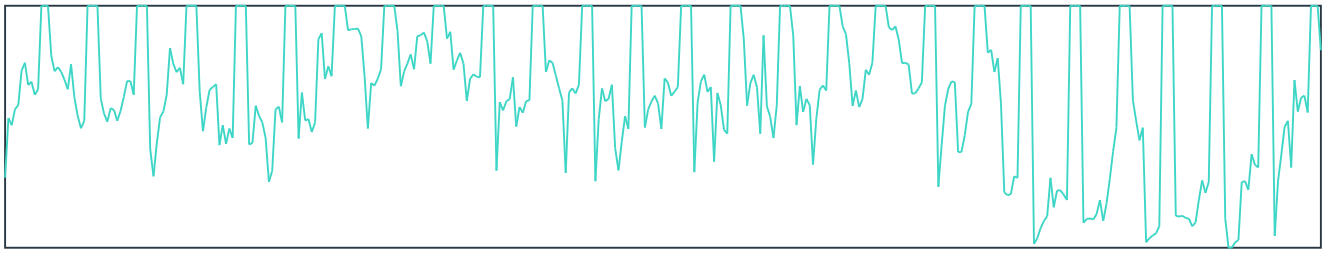
n=400 min=0.00 max=1.07

Live pulse (SoftAcc)



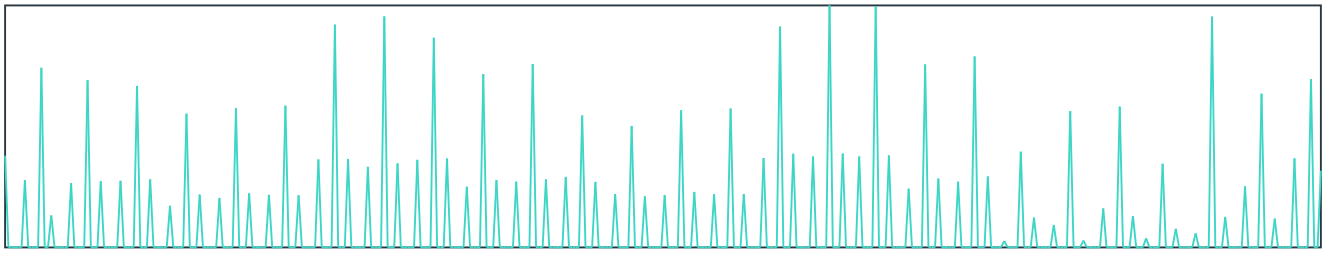
n=400 min=0.00 max=47.26

Live pulse (Availability)



n=400 min=9.34 max=100.00

Live pulse (Throughput)



n=400 min=1.34 max=2509.13

Queue by train mode (this epoch)

Mode	Done	Run	Left	Total
sgd	2675	1	9564	12240
step_sgd	0	0	12240	12240
tween	0	0	12240	12240
tween_chain	0	0	12240	12240
step_tween	0	0	12240	12240
step_tween_chain	0	0	12240	12240
MeshBP	0	0	12240	12240
Mesh[T]	0	0	12240	12240
Mesh[T]Chain	0	0	12240	12240
[T][S]	0	0	12240	12240