tide convt3

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
done - epoch 1/1 (1 left, 100% overall) - lr unset - 2026-08-23 13:32:54 -
This epoch 2346 / 2346 cells. Recorded 2346 results. Learning rate unset.
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.
pi_collection - convt3 - offline report

Lucy champions (this tide)

Axis	Cell	Score	Soft	Acc	Thru	Avail
hard acc	binary|none|Mesh[T][S]Sparse|single|simd	302.87	25.2	28.4	3059.5	39.4
throughput	float32|none|tween_chain|single|simd	1162.35	25.0	25.9	11072.2	42.0
availability	uint2|none|sgd|single|simd	911.32	25.0	26.5	7750.1	47.0
lucy score	float32|none|tween_chain|single|simd	1162.35	25.0	25.9	11072.2	42.0
mobile score (trap)	binary|none|sgd|single|simd	1106.65	25.1	29.9	10898.8	40.5
t->50%	int|none|sgd|tricameral|simd	11.02	22.1	22.8	242.1	20.6
acc/sec	binary|none|sgd|single|simd	1106.65	25.1	29.9	10898.8	40.5

Lucy axis champions (this tide)

Axis	Mode	DType	Arch	Value
hard_acc	[T][S][HP]	uintptr	tricameralx3	59.38
throughput	tween_chain	float32	singlex1	11072.19
availability	sgd	uint2	singlex1	47.04
score	tween_chain	float32	singlex1	1162.35
soft_acc	Mesh[T][S]Sparse	binary	singlex1	25.15
acc_thru	sgd	binary	singlex1	3256.69
realtime	tween_chain	float32	singlex1	4646.99
adapt	sgd	binary	singlex1	25.11
keep_learn	step_tween	fp6	tricameralx3	15.10
acc_per_sec	sgd	binary	singlex1	12.53
time_to_50	sgd	int	tricameralx3	0.07
consistency	sgd	float64	singlex1	100.00
stability	tween_chain	fp4	singlex1	100.00
mobile_score	sgd	binary	singlex1	42978021~
lpd	Mesh[T]Alt	int2	tricameralx3	12.05
mspeed	[T][S][HP]	int16	tricameralx3	1.00
mavail	Mesh[T][S]Sparse	uint32	tricameralx3	1.00
mix	[T][S][HP]	int16	tricameralx3	0.85
gold_std	[T][S]Sparse	int6	bicameralx2	6.57

Best settings per train mode

Mode	DType	Format	Score	Soft	Acc	Avail	n
tween_chain	float32	none	1162.3	25.0	25.9	42.0	102
sgd	uint8	none	1111.6	25.0	24.1	40.6	102
[T][S][HP]	ternary	none	1028.1	25.1	30.1	42.5	102
tween	float32	none	1004.3	25.0	25.2	39.3	102
MeshBP	fp4	none	894.0	25.0	24.6	40.4	102
Mesh[T]Chain	float32	none	891.6	25.0	29.4	39.5	102
step_sgd	float32	none	854.1	25.0	29.3	36.0	102
[T][S][L]	float32	none	839.5	25.0	22.7	40.0	102
[T][S]	binary	none	803.1	25.0	29.1	44.0	102

[T][S][FP]	fp4	none	792.6	25.0	27.6	42.9	102
step_tween_chain	uint16	none	744.4	25.0	25.0	40.0	102
step_tween	ternary	none	731.1	25.0	28.9	38.0	102
[T][S][L]Cache	int2	none	719.3	25.1	28.9	45.0	102
Mesh[T]	int8	none	690.0	25.0	24.0	36.4	102
[T][S][HP]Async	float32	none	673.2	25.0	27.9	42.7	102
Step[T][S]	int8	none	653.8	25.0	26.2	42.0	102
[T][S]Sparse	int8	none	600.4	25.0	24.9	44.1	102
Mesh[T][S]	float32	none	564.8	25.0	18.0	46.5	102
Mesh[T][S][FP]	uint8	none	411.0	25.0	28.3	42.5	102
Mesh[T][S]Sparse	float32	none	407.9	25.0	29.7	43.0	102
[T]Alt	float32	none	394.2	25.0	23.9	33.1	102
Mesh[T]Alt	int2	none	264.8	25.0	29.7	34.9	102
Step[T]Alt	fp4	none	232.3	25.0	24.1	29.5	102

Best dtype per mode

Mode	Winner dtype	Score	Soft	Acc
tween_chain	float32	1162.3	25.0	25.9
sgd	uint8	1111.6	25.0	24.1
[T][S][HP]	ternary	1028.1	25.1	30.1
tween	float32	1004.3	25.0	25.2
MeshBP	fp4	894.0	25.0	24.6
Mesh[T]Chain	float32	891.6	25.0	29.4
step_sgd	float32	854.1	25.0	29.3
[T][S][L]	float32	839.5	25.0	22.7
[T][S]	binary	803.1	25.0	29.1
[T][S][FP]	fp4	792.6	25.0	27.6
step_tween_chain	uint16	744.4	25.0	25.0
step_tween	ternary	731.1	25.0	28.9
[T][S][L]Cache	int2	719.3	25.1	28.9
Mesh[T]	int8	690.0	25.0	24.0
[T][S][HP]Async	float32	673.2	25.0	27.9
Step[T][S]	int8	653.8	25.0	26.2
[T][S]Sparse	int8	600.4	25.0	24.9
Mesh[T][S]	float32	564.8	25.0	18.0
Mesh[T][S][FP]	uint8	411.0	25.0	28.3
Mesh[T][S]Sparse	float32	407.9	25.0	29.7
[T]Alt	float32	394.2	25.0	23.9
Mesh[T]Alt	int2	264.8	25.0	29.7
Step[T]Alt	fp4	232.3	25.0	24.1

Best mode per dtype

DType	Winner mode	Score	Soft	Acc
float32	tween_chain	1162.3	25.0	25.9
uint8	sgd	1111.6	25.0	24.1
binary	sgd	1106.6	25.1	29.9
int4	sgd	1048.3	24.3	25.2
int8	tween_chain	1045.7	25.0	20.4
ternary	[T][S][HP]	1028.1	25.1	30.1
int2	tween_chain	1012.8	25.0	24.5
fp4	tween_chain	997.0	25.0	25.3
float64	sgd	981.6	25.0	25.2

int16	sgd	940.9	25.0	24.1
int64	sgd	926.9	25.0	25.3
uint2	sgd	911.3	25.0	26.5
fp8e4m3	tween_chain	901.8	25.0	30.7
fp8e5m2	tween_chain	900.2	25.0	27.1
uint32	sgd	890.7	24.4	24.8
uint64	[T][S][HP]	879.6	25.1	23.4
bfloat16	sgd	871.2	24.4	27.2
float16	sgd	854.1	24.4	24.8
uint4	sgd	838.1	25.0	24.3
complex64	sgd	820.8	25.0	26.0
uint16	sgd	791.3	24.3	23.3
int32	[T][S][HP]	780.0	25.0	17.9
uint3	[T][S]	734.7	25.0	28.9
uint	sgd	728.2	25.0	21.6
complex128	tween	727.7	25.0	27.1
uintptr	sgd	713.6	25.0	26.0
int	sgd	663.2	25.0	26.1
nf4	sgd	655.8	25.0	26.0
int5	tween_chain	614.3	25.0	27.1
uint5	sgd	598.7	25.0	25.3
int6	sgd	562.8	25.0	26.9
int3	sgd	560.7	25.0	27.2
fp6	[T][S][HP]	524.7	25.0	23.2
uint6	tween_chain	523.8	25.0	23.8

Leaderboard (Lucy Score)

#	Cell	Score	Soft	Acc	Thru	Avail
1	float32|none|tween_chain|single|simd	1162.3	25.0	25.9	11072.2	42.0
2	uint8|none|sgd|single|simd	1111.6	25.0	24.1	10952.3	40.6
3	binary|none|sgd|single|simd	1106.6	25.1	29.9	10898.8	40.5
4	float32|none|sgd|single|simd	1106.4	25.0	25.9	11046.8	40.1
5	int4|none|sgd|single|simd	1048.3	24.3	25.2	10904.3	39.5
6	int8|none|tween_chain|single|simd	1045.7	25.0	20.4	9990.1	41.9
7	ternary|none|[T][S][HP]|single|simd	1028.1	25.1	30.1	9663.3	42.5
8	int2|none|tween_chain|single|simd	1012.8	25.0	24.5	9726.7	41.6
9	float32|none|tween|single|simd	1004.3	25.0	25.2	10228.1	39.3
10	ternary|none|sgd|single|simd	999.4	25.0	24.0	10149.3	39.4
11	fp4|none|tween_chain|single|simd	997.0	25.0	25.3	9899.9	40.3
12	int2|none|sgd|single|simd	997.0	24.3	24.1	10131.1	40.4
13	float64|none|sgd|single|simd	981.6	25.0	25.2	10028.0	39.2
14	float64|none|tween_chain|single|simd	963.7	25.0	23.4	9609.1	40.1
15	binary|none|tween_chain|single|simd	961.5	25.0	26.0	8943.0	43.1
16	fp4|none|[T][S][HP]|single|simd	942.1	25.0	30.3	9520.0	39.6
17	int16|none|sgd|single|simd	940.9	25.0	24.1	9008.7	41.8
18	int64|none|sgd|single|simd	926.9	25.0	25.3	8845.7	41.9
19	uint2|none|sgd|single|simd	911.3	25.0	26.5	7750.1	47.0
20	fp8e4m3|none|tween_chain|single|simd	901.8	25.0	30.7	8978.0	40.2

Leaderboard (SoftAcc)

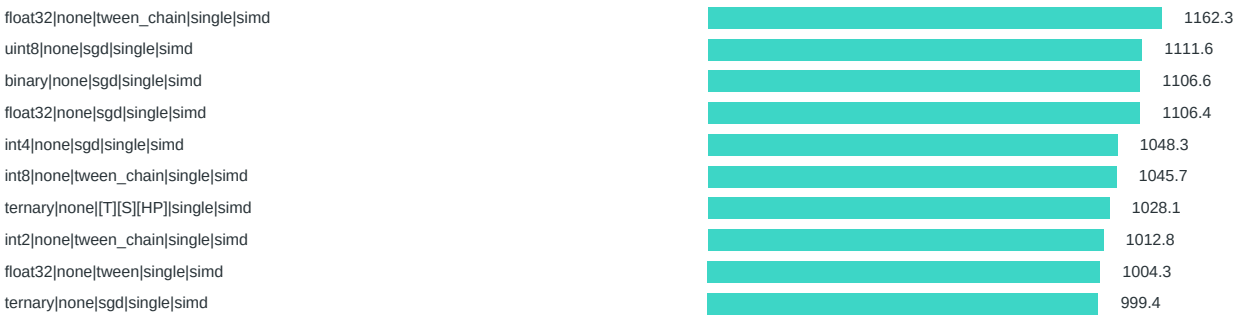
#	Cell	Score	Soft	Acc	Thru	Avail
1	binary|none|sgd|single|simd	1106.6	25.1	29.9	10898.8	40.5

2	uint64|none|[T][S][HP]|single|simd	879.6	25.1	23.4	8085.3	43.4
3	ternary|none|[T][S][HP]|single|simd	1028.1	25.1	30.1	9663.3	42.5
4	fp8e5m2|none|tween_chain|single|simd	900.2	25.0	27.1	8840.9	40.7
5	int2|none|[T][S][HP]|single|simd	857.1	25.0	20.6	8762.1	39.1
6	ternary|none|tween_chain|single|simd	870.2	25.0	25.7	8707.5	39.9
7	ternary|none|MeshBP|single|simd	849.0	25.0	25.3	9030.1	37.6
8	float32|none|step_sgd|single|simd	854.1	25.0	29.3	9468.9	36.0
9	binary|none|MeshBP|single|simd	841.0	25.0	20.9	8187.8	41.0
10	float32|none|Mesh[T]Chain|single|simd	891.6	25.0	29.4	9019.8	39.5
11	fp8e5m2|none|[T][S][HP]|single|simd	889.0	25.0	26.1	8134.9	43.7
12	ternary|none|tween|single|simd	867.9	25.0	27.7	8957.6	38.7
13	int2|none|tween_chain|single|simd	1012.8	25.0	24.5	9726.7	41.6
14	float32|none|tween_chain|single|simd	1162.3	25.0	25.9	11072.2	42.0
15	int16|none|sgd|single|simd	940.9	25.0	24.1	9008.7	41.8
16	float32|none|MeshBP|single|simd	849.3	25.0	24.6	8315.7	40.8
17	fp8e4m3|none|sgd|single|simd	879.7	25.0	26.6	8879.9	39.6
18	float32|none|sgd|single|simd	1106.4	25.0	25.9	11046.8	40.1
19	float32|none|tween|single|simd	1004.3	25.0	25.2	10228.1	39.3
20	fp4|none|tween_chain|single|simd	997.0	25.0	25.3	9899.9	40.3

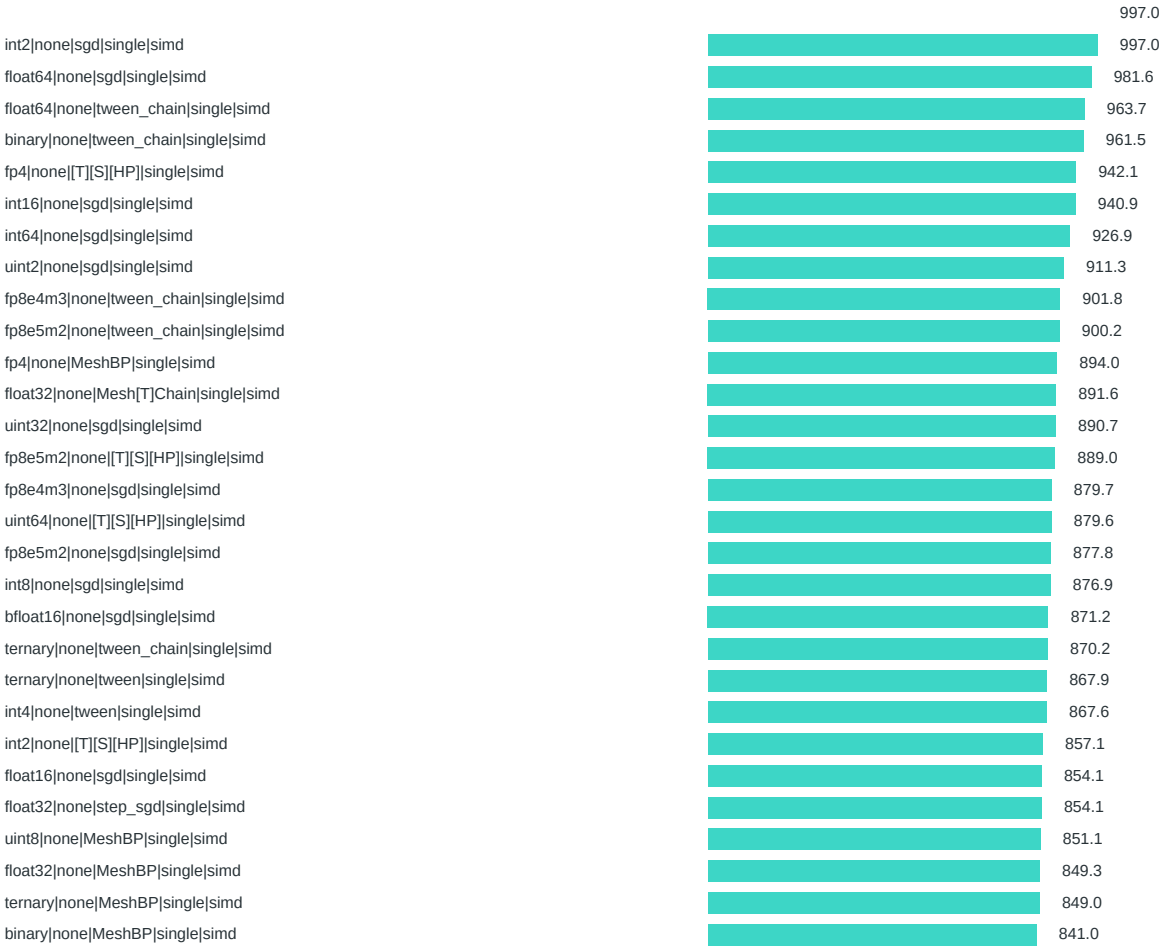
Leaderboard (hard Acc)

#	Cell	Score	Soft	Acc	Thru	Avail
1	fp8e4m3|none|tween_chain|single|simd	901.8	25.0	30.7	8978.0	40.2
2	fp4|none|[T][S][HP]|single|simd	942.1	25.0	30.3	9520.0	39.6
3	ternary|none|[T][S][HP]|single|simd	1028.1	25.1	30.1	9663.3	42.5
4	binary|none|sgd|single|simd	1106.6	25.1	29.9	10898.8	40.5
5	float32|none|Mesh[T]Chain|single|simd	891.6	25.0	29.4	9019.8	39.5
6	float32|none|step_sgd|single|simd	854.1	25.0	29.3	9468.9	36.0
7	ternary|none|tween|single|simd	867.9	25.0	27.7	8957.6	38.7
8	int4|none|tween|single|simd	867.6	25.0	27.5	9035.3	38.4
9	bfloat16|none|sgd|single|simd	871.2	24.4	27.2	9219.4	38.7
10	fp8e5m2|none|tween_chain|single|simd	900.2	25.0	27.1	8840.9	40.7
11	fp8e4m3|none|sgd|single|simd	879.7	25.0	26.6	8879.9	39.6
12	uint2|none|sgd|single|simd	911.3	25.0	26.5	7750.1	47.0
13	fp8e5m2|none|[T][S][HP]|single|simd	889.0	25.0	26.1	8134.9	43.7
14	binary|none|tween_chain|single|simd	961.5	25.0	26.0	8943.0	43.1
15	float32|none|tween_chain|single|simd	1162.3	25.0	25.9	11072.2	42.0
16	float32|none|sgd|single|simd	1106.4	25.0	25.9	11046.8	40.1
17	ternary|none|tween_chain|single|simd	870.2	25.0	25.7	8707.5	39.9
18	fp4|none|tween_chain|single|simd	997.0	25.0	25.3	9899.9	40.3
19	uint8|none|MeshBP|single|simd	851.1	25.0	25.3	8160.8	41.7
20	int64|none|sgd|single|simd	926.9	25.0	25.3	8845.7	41.9

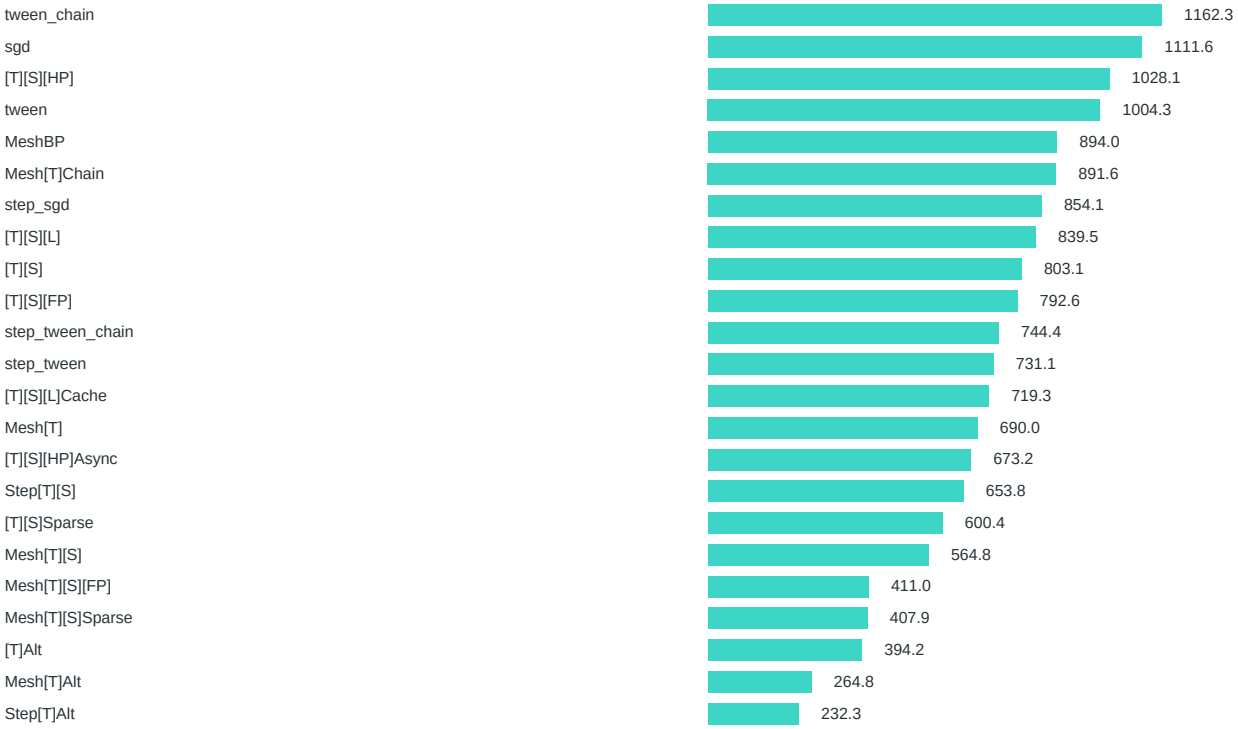
Top scores



fp4|none|tween_chain|single|simd



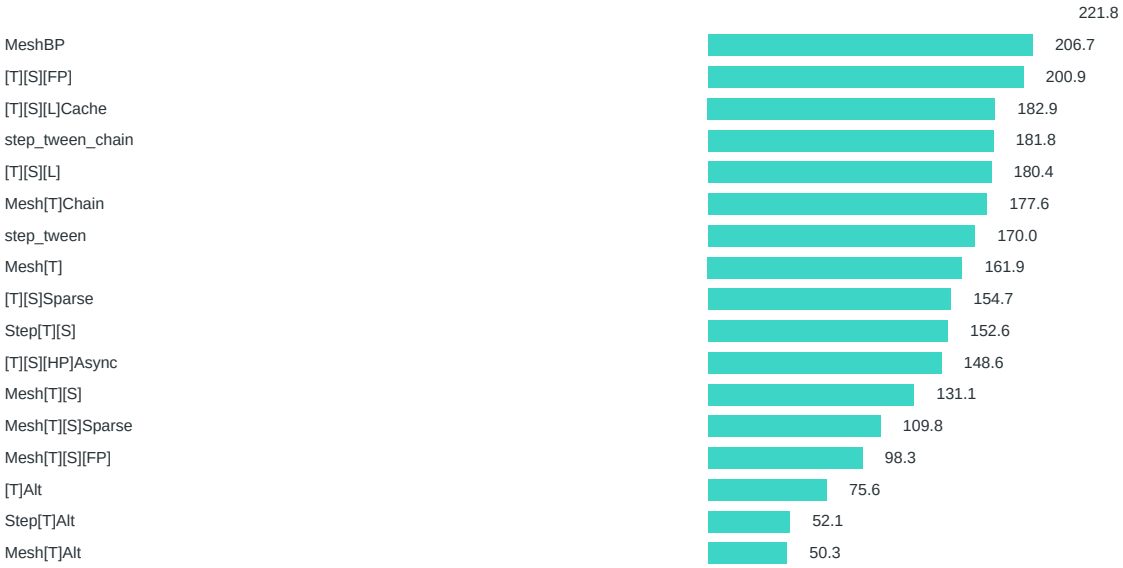
Best settings per mode



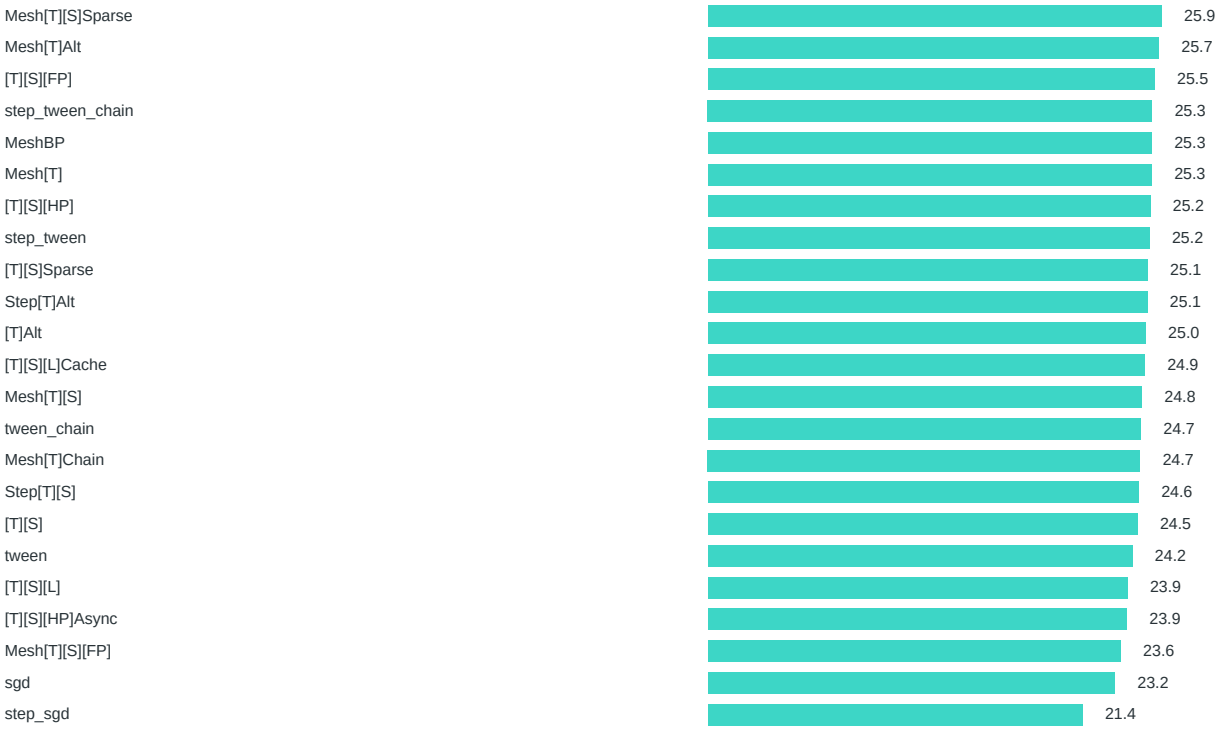
Mean Score by train mode



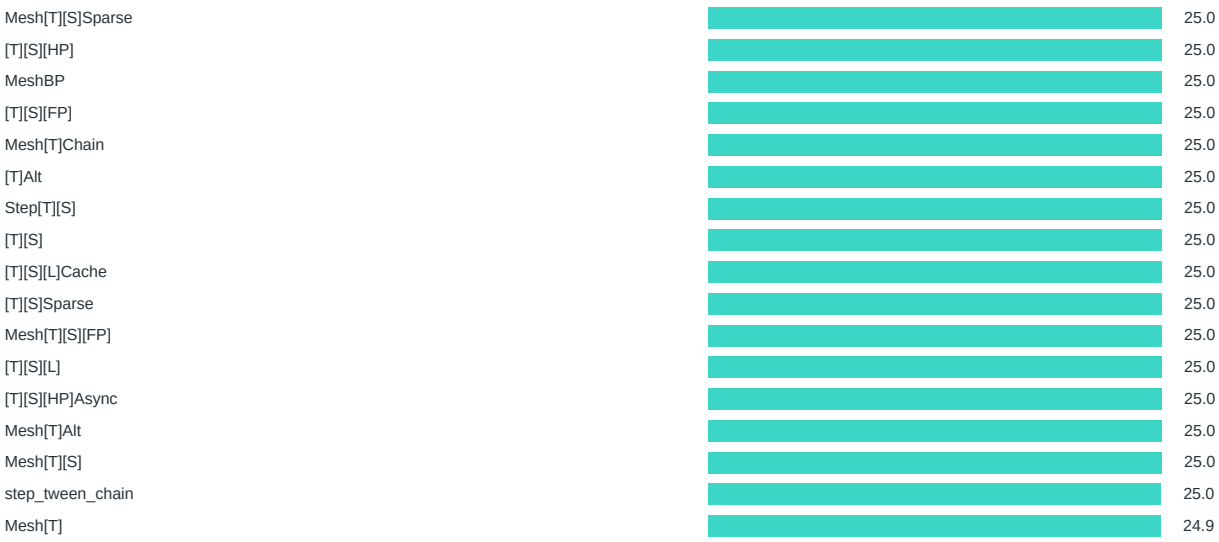
step_sgd



Mean hard Acc by train mode



Mean SoftAcc by train mode



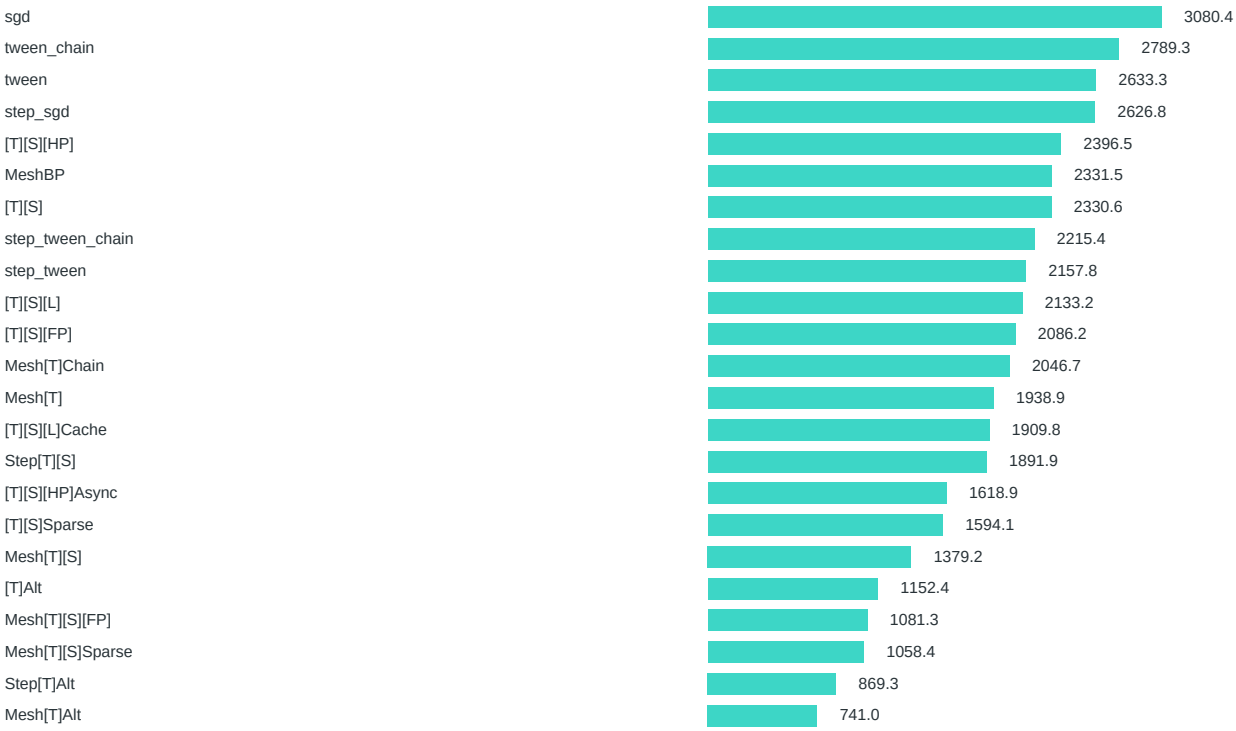
step_tween



Mean Availability by train mode



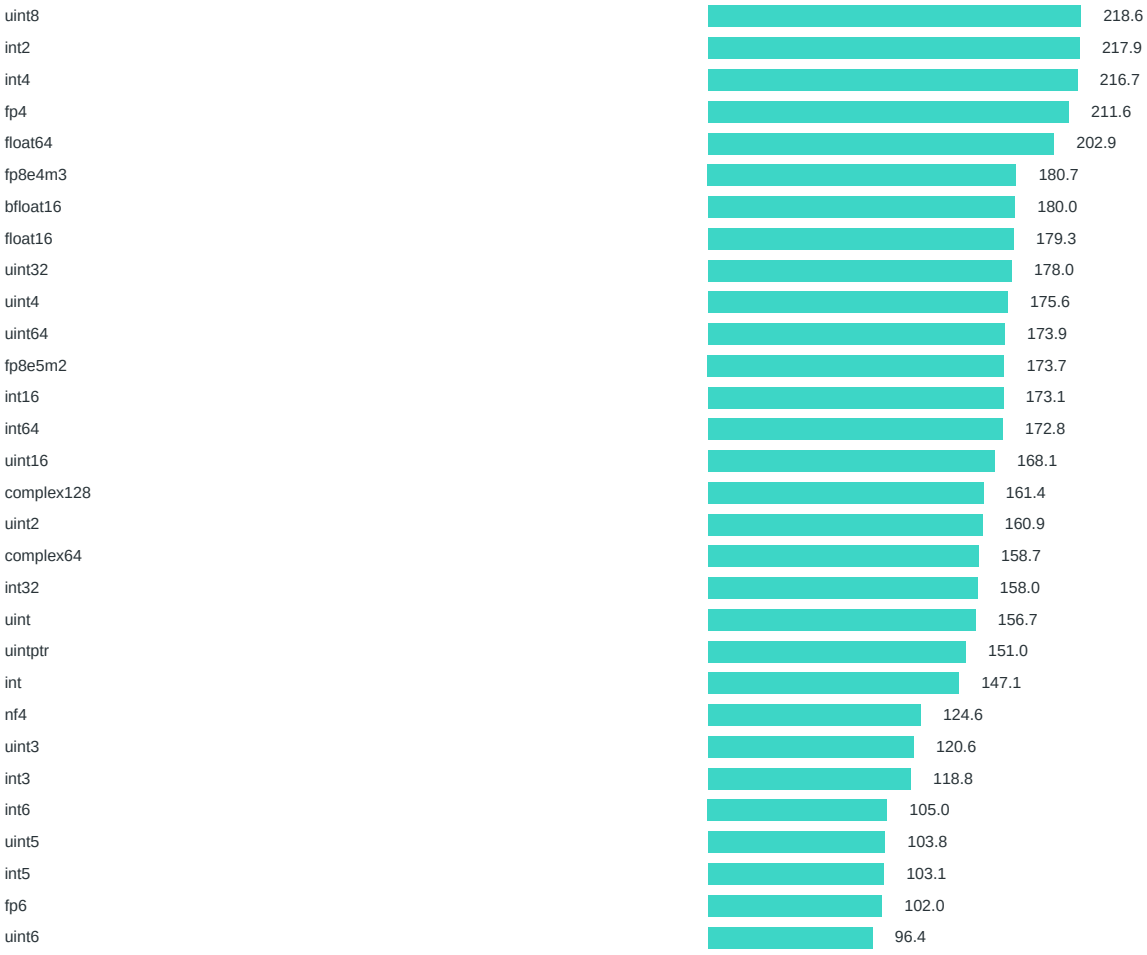
Mean Throughput by train mode



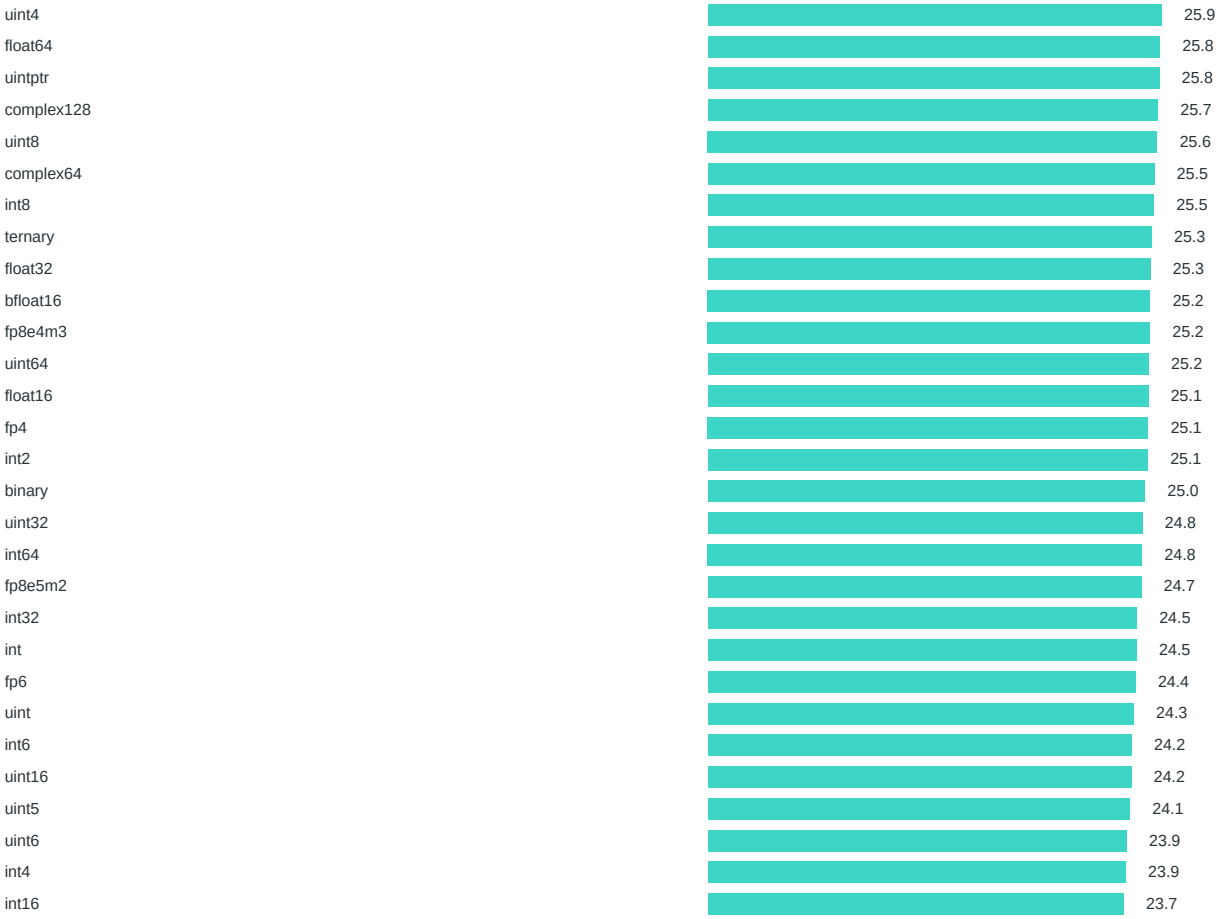
Mean Score by dtype



Mean Score by dtype



Mean hard Acc by dtype



Mean hard Acc by dtype



Mean Score by arch



Honesty - mean Score, every mode x dtype (cols 1-12)

	bfloat16	binary	complex128	complex64	float16	float32	float64	fp4	fp6	fp8e4m3	fp8e5m2	int
MeshBP	158	258	168	123	248	328	265	307	159	180	259	203
Mesh[T]	175	219	168	134	159	262	126	193	87	194	195	116
Mesh[T]Alt	44	53	44	51	58	95	87	41	14	54	38	42
Mesh[T]Chain	216	110	190	166	178	391	255	236	96	135	151	156
Mesh[T][S]	166	191	131	132	157	153	184	138	78	146	145	137
Mesh[T][S][FP]	132	105	124	94	80	140	134	110	49	81	105	107
Mesh[T][S]Sparse	101	151	98	66	89	218	154	128	65	95	128	82
Step[T]Alt	55	82	39	51	65	76	74	77	21	53	45	34
Step[T][S]	195	198	121	127	139	244	144	143	98	143	105	149
[T]Alt	74	108	59	84	75	134	147	98	40	80	54	89
[T][S]	213	358	185	231	176	258	273	288	164	245	188	214
[T][S][FP]	258	234	174	203	235	302	157	312	129	248	221	171
[T][S][HP]	175	312	211	322	271	293	197	406	168	215	325	141
[T][S][HP]Async	127	188	161	127	168	274	139	216	110	163	109	178
[T][S][L]	234	163	207	171	292	299	214	290	135	132	110	175
[T][S][L]Cache	169	320	188	174	189	241	237	234	122	212	152	150
[T][S]Sparse	118	250	136	117	144	269	206	202	80	200	149	127
sgd	347	489	255	298	306	452	361	267	143	331	289	240
step_sgd	232	310	195	232	242	377	257	197	119	279	290	164
step_tween	261	257	135	135	143	241	240	213	71	165	203	141
step_tween_chain	203	206	169	220	264	240	209	194	90	180	145	145
tween	225	266	274	206	214	379	278	229	141	241	251	224
tween_chain	263	357	281	184	232	455	328	346	167	383	337	196

Honesty - mean Score, every mode x dtype (cols 13-24)

Honesty - mean Score, every mode x dtype (cols 13-24)

	int16	int2	int3	int32	int4	int5	int6	int64	int8	nf4	ternary	uint
MeshBP	223	200	150	179	290	159	167	194	298	159	305	154
Mesh[T]	158	257	106	190	208	88	72	131	250	149	210	185
Mesh[T]Alt	42	109	21	44	74	22	35	55	86	29	88	30
Mesh[T]Chain	128	110	159	193	224	122	106	194	298	113	292	154
Mesh[T][S]	95	175	96	143	171	64	77	124	177	84	140	135
Mesh[T][S][FP]	86	133	53	67	133	55	52	100	168	60	96	88
Mesh[T][S]Sparse	117	168	75	93	176	62	62	93	207	65	169	94
Step[T]Alt	57	66	21	43	68	33	17	56	78	39	71	42
Step[T][S]	190	158	126	155	151	101	112	151	268	115	178	144
[T]Alt	77	112	38	68	86	38	38	85	110	48	88	87
[T][S]	211	267	164	210	278	144	167	208	328	164	326	253
[T][S][FP]	170	242	136	218	168	135	117	253	286	72	281	244
[T][S][HP]	252	281	197	217	350	93	178	225	254	199	464	201
[T][S][HP]Async	185	184	127	156	160	117	84	136	217	100	147	125
[T][S][L]	214	232	118	144	223	130	146	204	278	152	228	187
[T][S][L]Cache	176	312	122	149	213	147	100	149	241	105	204	172
[T][S]Sparse	119	235	70	132	195	64	83	159	278	137	246	143
sgd	316	370	210	228	399	171	206	327	363	237	355	220
step_sgd	254	254	135	240	290	108	125	284	271	168	272	210
step_tween	159	235	112	153	199	92	90	162	261	130	306	159
step_tween_chain	190	220	123	158	245	82	105	196	249	159	215	160
tween	273	328	184	186	350	120	121	215	264	188	341	210
tween_chain	290	363	189	267	332	227	156	273	323	196	325	208

Honesty - mean Score, every mode x dtype (cols 25-34)

Honesty - mean Score, every mode x dtype (cols 25-34)

	uint16	uint2	uint3	uint32	uint4	uint5	uint6	uint64	uint8	uintptr
MeshBP	167	182	151	218	221	124	164	196	313	157
Mesh[T]	140	110	115	199	180	109	97	159	207	156
Mesh[T]Alt	47	47	31	59	37	26	35	58	79	36
Mesh[T]Chain	183	197	173	144	199	124	80	230	241	95
Mesh[T][S]	146	103	69	179	137	69	104	132	173	108
Mesh[T][S][FP]	85	99	63	101	96	76	65	110	173	122
Mesh[T][S]Sparse	97	109	55	102	102	61	67	105	179	99
Step[T]Alt	41	47	30	69	67	29	31	74	77	44
Step[T][S]	168	168	163	170	161	88	82	167	196	170
[T]Alt	123	48	54	78	61	40	31	75	67	76
[T][S]	264	348	295	203	187	134	121	188	284	176
[T][S][FP]	238	189	116	310	165	91	85	243	244	183
[T][S][HP]	162	115	109	204	263	119	91	300	385	162
[T][S][HP]Async	123	111	121	189	177	71	91	168	190	113
[T][S][L]	176	126	97	133	174	142	124	157	183	144
[T][S][L]Cache	151	210	127	200	239	101	94	193	248	177
[T][S]Sparse	187	181	95	156	160	101	97	118	172	134
sgd	267	334	174	316	285	206	182	237	392	258
step_sgd	243	168	187	215	269	174	131	202	216	234
step_tween	160	142	92	149	175	89	71	216	268	154
step_tween_chain	255	217	123	226	224	116	86	207	179	182
tween	230	177	184	270	240	146	119	234	296	246
tween_chain	215	271	151	206	222	152	170	232	266	247

Honesty - mean hard Acc, every mode x dtype (cols 1-12)

Honesty - mean hard Acc, every mode x dtype (cols 1-12)

	bfloat16	binary	complex128	complex64	float16	float32	float64	fp4	fp6	fp8e4m3	fp8e5m2	int
MeshBP	25	23	26	26	26	25	26	26	29	23	27	24
Mesh[T]	24	25	30	26	21	28	26	26	23	27	24	24
Mesh[T]Alt	25	25	30	21	29	24	30	27	18	31	28	32
Mesh[T]Chain	26	21	24	27	23	30	25	27	29	28	24	21
Mesh[T][S]	22	22	36	28	27	17	25	29	31	32	22	24
Mesh[T][S][FP]	27	23	18	24	26	25	27	22	22	22	26	22
Mesh[T][S]Sparse	20	27	30	20	23	30	33	28	23	22	28	26
Step[T]Alt	25	29	26	24	27	23	26	25	22	24	27	24
Step[T][S]	28	23	24	26	24	27	23	23	22	24	23	24
[T]Alt	24	27	22	29	26	23	23	21	28	25	26	26
[T][S]	27	25	18	26	24	25	25	27	21	22	28	23
[T][S][FP]	27	26	26	31	24	34	28	27	38	19	23	22
[T][S][HP]	27	29	28	28	22	26	29	25	18	23	21	25
[T][S][HP]Async	19	26	28	26	26	26	22	28	25	27	30	26
[T][S][L]	30	16	32	29	30	24	22	24	34	22	25	23
[T][S][L]Cache	30	29	26	26	21	25	28	26	25	31	16	19
[T][S]Sparse	21	25	25	25	26	22	27	26	21	24	20	34
sgd	25	29	23	25	24	24	25	23	17	25	24	24
step_sgd	23	28	19	22	25	26	24	22	15	24	26	20
step_tween	29	25	22	25	27	25	24	25	25	26	27	27
step_tween_chain	25	26	26	25	27	23	24	25	26	27	25	24
tween	25	24	25	21	27	23	26	23	22	27	25	24
tween_chain	25	24	27	25	23	25	24	24	27	26	23	24

Honesty - mean hard Acc, every mode x dtype (cols 13-24)

Honesty - mean hard Acc, every mode x dtype (cols 13-24)

	int16	int2	int3	int32	int4	int5	int6	int64	int8	nf4	ternary	uint
MeshBP	24	27	28	26	25	26	28	25	24	27	24	24
Mesh[T]	25	27	25	29	23	22	26	26	27	26	28	21
Mesh[T]Alt	25	32	18	28	27	30	28	30	29	19	24	15
Mesh[T]Chain	21	25	25	26	21	21	25	24	26	19	26	24
Mesh[T][S]	25	24	19	26	24	16	20	25	22	28	26	23
Mesh[T][S][FP]	19	24	27	18	24	20	23	23	28	17	21	29
Mesh[T][S]Sparse	32	24	21	24	22	25	20	22	25	29	26	20
Step[T]Alt	16	26	22	27	25	32	22	25	22	24	27	23
Step[T][S]	22	21	26	24	25	22	23	22	26	22	25	31
[T]Alt	28	25	24	24	27	27	24	26	27	24	24	25
[T][S]	25	24	27	23	24	26	23	24	25	20	25	28
[T][S][FP]	24	20	24	24	20	24	28	33	27	20	25	32
[T][S][HP]	30	25	18	25	23	19	26	23	29	28	25	25
[T][S][HP]Async	22	23	26	25	22	27	17	20	26	30	25	30
[T][S][L]	21	26	20	20	23	22	31	21	24	29	29	24
[T][S][L]Cache	22	26	24	23	19	33	25	30	22	21	23	21
[T][S]Sparse	23	26	19	23	22	23	33	33	25	22	27	22
sgd	24	25	23	22	24	18	20	23	25	23	26	23
step_sgd	22	24	15	25	27	13	15	23	23	21	23	19
step_tween	23	26	24	24	24	22	28	23	27	25	27	26
step_tween_chain	23	25	27	25	26	26	26	22	26	24	24	29
tween	26	26	24	24	26	22	20	24	25	23	25	23
tween_chain	27	26	24	26	27	25	24	25	25	24	25	24

Honesty - mean hard Acc, every mode x dtype (cols 25-34)

Honesty - mean hard Acc, every mode x dtype (cols 25-34)

	uint16	uint2	uint3	uint32	uint4	uint5	uint6	uint64	uint8	uintptr
MeshBP	22	24	26	22	25	24	25	24	27	28
Mesh[T]	26	23	26	29	23	24	27	29	22	24
Mesh[T]Alt	10	25	19	28	32	22	24	31	30	32
Mesh[T]Chain	24	22	28	23	27	23	27	24	26	25
Mesh[T][S]	26	29	14	25	23	21	27	25	32	25
Mesh[T][S][FP]	18	22	22	24	26	28	27	25	29	23
Mesh[T][S]Sparse	21	24	24	29	29	36	25	31	30	28
Step[T]Alt	33	24	27	23	23	23	25	25	25	32
Step[T][S]	28	22	28	23	26	30	25	23	28	25
[T]Alt	28	16	22	25	24	31	27	30	20	23
[T][S]	25	29	25	27	26	24	21	25	25	23
[T][S][FP]	23	25	22	31	29	20	28	25	19	20
[T][S][HP]	25	13	25	28	31	18	27	25	28	41
[T][S][HP]Async	26	21	20	23	22	15	17	22	27	16
[T][S][L]	16	18	15	15	25	30	22	28	23	21
[T][S][L]Cache	25	26	16	28	28	29	30	22	26	27
[T][S]Sparse	32	29	22	23	28	29	22	20	29	26
sgd	23	24	21	23	24	17	19	24	24	24
step_sgd	21	21	16	22	24	18	14	21	22	21
step_tween	25	25	25	25	25	25	26	24	24	25
step_tween_chain	26	24	27	28	25	24	25	25	26	26
tween	26	24	26	23	24	23	19	24	26	28
tween_chain	28	24	21	22	25	24	22	27	23	28

Honesty - mean SoftAcc, every mode x dtype (cols 1-12)

Honesty - mean SoftAcc, every mode x dtype (cols 1-12)

	bfloat16	binary	complex128	complex64	float16	float32	float64	fp4	fp6	fp8e4m3	fp8e5m2	int
MeshBP	25	25	25	25	25	25	25	25	25	25	25	25
Mesh[T]	25	25	25	25	25	25	25	25	25	25	25	25
Mesh[T]Alt	25	25	25	25	25	25	25	25	25	25	25	25
Mesh[T]Chain	25	25	25	25	25	25	25	25	25	25	25	25
Mesh[T][S]	25	25	25	25	25	25	25	25	25	25	25	25
Mesh[T][S][FP]	25	25	25	25	25	25	25	25	25	25	25	25
Mesh[T][S]Sparse	25	25	25	25	25	25	25	25	25	25	25	25
Step[T]Alt	25	25	25	21	25	25	25	25	25	25	25	25
Step[T][S]	25	25	25	25	25	25	25	25	25	25	25	25
[T]Alt	25	25	25	25	25	25	25	25	25	25	25	25
[T][S]	25	25	25	25	25	25	25	25	25	25	25	25
[T][S][FP]	25	25	25	25	25	25	25	25	25	25	25	25
[T][S][HP]	25	25	25	25	25	25	25	25	25	25	25	25
[T][S][HP]Async	25	25	25	25	25	25	25	25	25	25	25	25
[T][S][L]	25	25	25	25	25	25	25	25	25	25	25	25
[T][S][L]Cache	25	25	25	25	25	25	25	25	25	25	25	25
[T][S]Sparse	25	25	25	25	25	25	25	25	25	25	25	25
sgd	25	25	23	24	23	25	24	22	18	25	24	23
step_sgd	24	25	22	22	23	24	24	23	15	23	23	21
step_tween	25	25	25	25	25	25	25	25	23	25	25	25
step_tween_chain	25	25	25	25	25	25	25	25	25	25	25	25
tween	25	25	25	24	24	24	25	24	21	24	24	25
tween_chain	25	25	25	25	24	25	25	24	25	25	25	25

Honesty - mean SoftAcc, every mode x dtype (cols 13-24)

Honesty - mean SoftAcc, every mode x dtype (cols 13-24)

	int16	int2	int3	int32	int4	int5	int6	int64	int8	nf4	ternary	uint
MeshBP	25	25	25	25	25	25	25	25	25	25	25	25
Mesh[T]	25	25	25	25	25	25	25	25	25	25	25	23
Mesh[T]Alt	25	25	25	25	25	25	25	25	25	25	25	25
Mesh[T]Chain	25	25	25	25	25	25	25	25	25	25	25	25
Mesh[T][S]	25	25	25	25	25	25	25	25	25	25	25	25
Mesh[T][S][FP]	25	25	25	25	25	25	25	25	25	25	25	25
Mesh[T][S]Sparse	25	25	25	25	25	25	25	25	25	25	25	25
Step[T]Alt	25	25	25	25	25	25	25	25	25	25	25	25
Step[T][S]	25	25	25	25	25	25	25	25	25	25	25	25
[T]Alt	25	25	25	25	25	25	25	25	25	25	25	25
[T][S]	25	25	25	25	25	25	25	25	25	25	25	25
[T][S][FP]	25	25	25	25	25	25	25	25	25	25	25	25
[T][S][HP]	25	25	25	25	25	25	25	25	25	25	25	25
[T][S][HP]Async	25	25	25	25	25	25	25	25	25	25	25	25
[T][S][L]	25	25	25	25	25	25	25	25	25	25	25	25
[T][S][L]Cache	25	25	25	25	25	25	25	25	25	25	25	25
[T][S]Sparse	25	25	25	25	25	25	25	25	25	25	25	25
sgd	24	24	22	23	25	19	19	24	25	23	24	23
step_sgd	22	25	18	24	25	15	15	23	25	20	24	20
step_tween	25	25	25	25	25	24	25	25	25	25	25	25
step_tween_chain	25	25	25	25	25	25	25	25	25	25	25	25
tween	25	25	24	24	25	22	21	25	25	24	25	25
tween_chain	25	25	25	25	25	24	24	25	25	24	25	25

Honesty - mean SoftAcc, every mode x dtype (cols 25-34)

Honesty - mean SoftAcc, every mode x dtype (cols 25-34)

	uint16	uint2	uint3	uint32	uint4	uint5	uint6	uint64	uint8	uintptr
MeshBP	25	25	25	25	25	25	25	25	25	25
Mesh[T]	25	25	25	25	25	25	25	25	25	25
Mesh[T]Alt	25	25	25	25	25	25	25	25	25	25
Mesh[T]Chain	25	25	25	25	25	25	25	25	25	25
Mesh[T][S]	25	25	25	25	25	25	25	25	25	25
Mesh[T][S][FP]	25	25	25	25	25	25	25	25	25	25
Mesh[T][S]Sparse	25	25	25	25	25	25	25	25	25	25
Step[T]Alt	25	25	25	25	25	25	25	25	25	25
Step[T][S]	25	25	25	25	25	25	25	25	25	25
[T]Alt	25	25	25	25	25	25	25	25	25	25
[T][S]	25	25	25	25	25	25	25	25	25	25
[T][S][FP]	25	25	25	25	25	25	25	25	25	25
[T][S][HP]	25	25	25	25	25	25	25	25	25	25
[T][S][HP]Async	25	25	25	25	25	25	25	25	25	25
[T][S][L]	25	25	25	25	25	25	25	25	25	25
[T][S][L]Cache	25	25	25	25	25	25	25	25	25	25
[T][S]Sparse	25	25	25	25	25	25	25	25	25	25
sgd	23	24	21	24	25	19	18	23	24	23
step_sgd	25	22	19	23	23	16	15	23	24	22
step_tween	25	25	25	25	25	24	25	25	25	25
step_tween_chain	25	25	25	25	25	23	25	25	25	25
tween	25	24	25	24	25	23	21	24	25	25
tween_chain	25	25	25	25	25	25	24	25	25	25

Honesty - mean Avail, every mode x dtype (cols 1-12)

Honesty - mean Avail, every mode x dtype (cols 1-12)

	bfloat16	binary	complex128	complex64	float16	float32	float64	fp4	fp6	fp8e4m3	fp8e5m2	int
MeshBP	24	25	25	24	26	30	28	26	26	26	28	26
Mesh[T]	24	22	28	25	23	25	23	23	22	25	23	25
Mesh[T]Alt	18	17	18	19	19	20	22	15	19	22	19	19
Mesh[T]Chain	25	22	28	25	25	29	29	23	24	26	24	27
Mesh[T][S]	33	29	32	34	35	31	32	28	35	32	33	36
Mesh[T][S][FP]	32	30	34	34	34	30	33	30	33	32	32	35
Mesh[T][S]Sparse	36	36	35	36	34	38	36	35	37	36	34	34
Step[T]Alt	18	18	16	17	16	18	19	18	15	16	15	19
Step[T][S]	24	26	25	26	25	25	24	23	27	25	24	26
[T]Alt	17	16	19	18	17	19	20	19	17	18	16	24
[T][S]	33	31	37	34	32	31	34	31	35	34	30	34
[T][S][FP]	32	29	34	35	34	32	29	32	33	35	33	33
[T][S][HP]	32	31	32	34	35	36	34	31	36	36	34	36
[T][S][HP]Async	30	28	35	33	34	28	32	32	37	34	31	33
[T][S][L]	28	23	29	30	30	30	29	31	30	29	28	32
[T][S][L]Cache	33	30	35	34	34	30	32	32	36	35	33	34
[T][S]Sparse	37	37	36	37	35	41	37	35	36	38	38	36
sgd	28	27	28	30	29	31	29	26	29	29	30	26
step_sgd	26	25	26	27	24	26	25	21	23	24	25	24
step_tween	22	22	22	23	23	24	27	22	19	23	23	21
step_tween_chain	22	22	22	23	25	24	24	21	22	22	23	24
tween	25	26	29	27	27	27	27	23	26	25	28	30
tween_chain	27	26	27	26	25	29	28	24	27	28	28	28

Honesty - mean Avail, every mode x dtype (cols 13-24)

Honesty - mean Avail, every mode x dtype (cols 13-24)

	int16	int2	int3	int32	int4	int5	int6	int64	int8	nf4	ternary	uint
MeshBP	27	21	25	26	23	27	27	26	28	24	23	24
Mesh[T]	28	26	25	26	21	26	24	24	23	25	24	27
Mesh[T]Alt	22	19	17	18	18	18	21	21	19	17	16	18
Mesh[T]Chain	26	20	30	26	23	28	27	25	23	24	24	26
Mesh[T][S]	34	29	33	34	33	35	35	37	30	30	28	36
Mesh[T][S][FP]	33	30	34	35	31	35	33	35	31	32	28	32
Mesh[T][S]Sparse	36	39	35	36	38	36	36	39	38	33	39	37
Step[T]Alt	20	16	14	18	17	20	18	19	18	16	18	17
Step[T][S]	28	26	27	27	25	27	27	24	28	25	23	25
[T]Alt	20	17	18	18	16	17	17	18	18	16	17	18
[T][S]	33	27	36	31	31	34	31	34	30	32	31	35
[T][S][FP]	35	28	33	34	28	35	36	34	29	30	33	33
[T][S][HP]	34	28	34	35	29	35	35	35	33	32	31	33
[T][S][HP]Async	32	31	33	33	30	36	35	34	27	30	28	30
[T][S][L]	31	26	29	28	21	30	31	29	24	26	21	28
[T][S][L]Cache	34	31	33	33	29	33	34	35	28	32	29	32
[T][S]Sparse	36	38	33	37	37	34	37	38	39	35	37	36
sgd	30	26	28	29	26	27	29	29	29	28	24	28
step_sgd	26	23	24	26	24	25	23	26	27	22	22	23
step_tween	22	22	23	24	21	20	21	23	23	20	23	24
step_tween_chain	24	20	22	24	21	21	23	22	22	22	20	23
tween	26	25	28	26	25	25	24	25	24	26	26	27
tween_chain	29	26	26	27	23	29	27	26	25	26	24	27

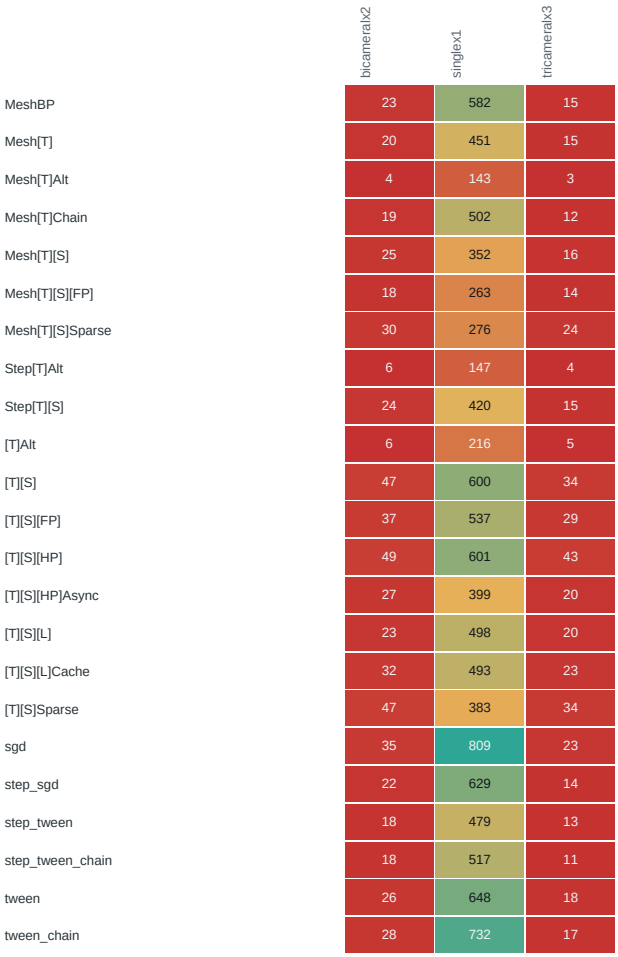
Honesty - mean Avail, every mode x dtype (cols 25-34)

Honesty - mean Avail, every mode x dtype (cols 25-34)

	uint16	uint2	uint3	uint32	uint4	uint5	uint6	uint64	uint8	uintptr
MeshBP	28	26	26	27	27	26	25	25	28	23
Mesh[T]	25	23	24	27	26	24	24	24	28	24
Mesh[T]Alt	18	18	18	19	21	18	19	19	20	18
Mesh[T]Chain	27	24	26	23	25	24	26	25	27	23
Mesh[T][S]	35	34	35	35	36	34	35	35	32	35
Mesh[T][S][FP]	31	33	33	33	34	34	35	35	31	31
Mesh[T][S]Sparse	35	37	37	37	36	35	38	35	36	36
Step[T]Alt	15	17	16	17	19	15	15	17	18	18
Step[T][S]	27	28	30	26	29	27	26	27	24	29
[T]Alt	21	18	20	21	18	18	18	19	17	18
[T][S]	36	35	36	35	32	34	34	35	31	33
[T][S][FP]	34	36	35	34	35	33	36	33	32	34
[T][S][HP]	31	33	35	34	35	33	37	35	32	35
[T][S][HP]Async	33	35	33	35	34	34	34	33	30	31
[T][S][L]	28	28	29	30	29	31	31	30	26	30
[T][S][L]Cache	35	35	34	34	35	34	35	34	32	33
[T][S]Sparse	37	38	35	35	37	35	37	35	33	35
sgd	29	31	29	29	30	29	28	30	30	27
step_sgd	27	26	24	25	25	24	23	25	24	25
step_tween	21	22	22	22	22	20	21	24	23	22
step_tween_chain	25	25	21	26	25	22	21	24	23	25
tween	26	26	27	27	27	27	26	26	26	27
tween_chain	27	28	26	28	27	27	28	25	27	27

Mean Score, every mode x arch

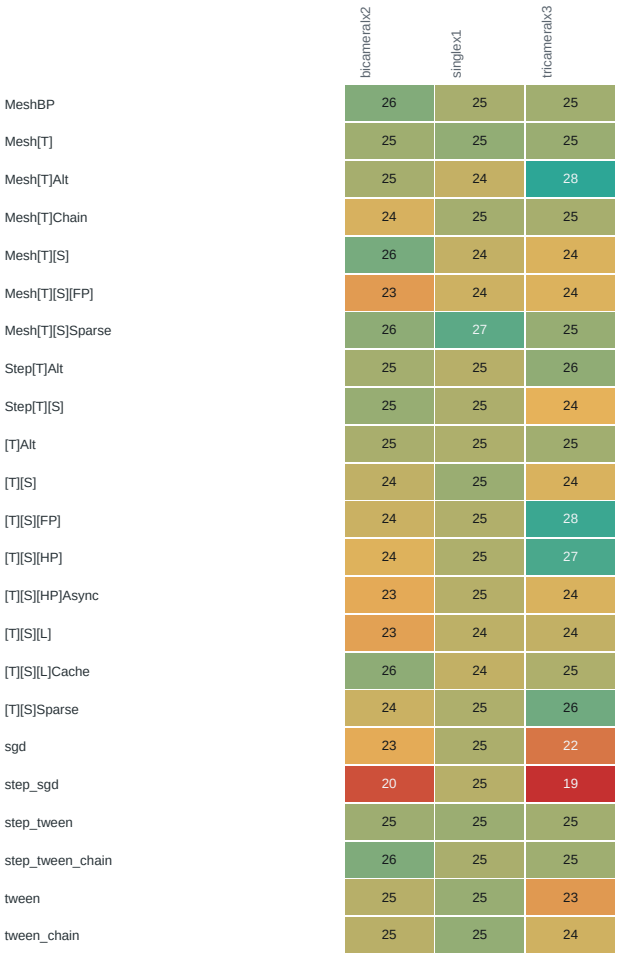
Mean Score, every mode x arch



	bicameralx2	singlex1	tricameralx3
MeshBP	23	582	15
Mesh[T]	20	451	15
Mesh[T]Alt	4	143	3
Mesh[T]Chain	19	502	12
Mesh[T][S]	25	352	16
Mesh[T][S][FP]	18	263	14
Mesh[T][S]Sparse	30	276	24
Step[T]Alt	6	147	4
Step[T][S]	24	420	15
[T]Alt	6	216	5
[T][S]	47	600	34
[T][S][FP]	37	537	29
[T][S][HP]	49	601	43
[T][S][HP]Async	27	399	20
[T][S][L]	23	498	20
[T][S][L]Cache	32	493	23
[T][S]Sparse	47	383	34
sgd	35	809	23
step_sgd	22	629	14
step_tween	18	479	13
step_tween_chain	18	517	11
tween	26	648	18
tween_chain	28	732	17

Mean hard Acc, every mode x arch

Mean hard Acc, every mode x arch



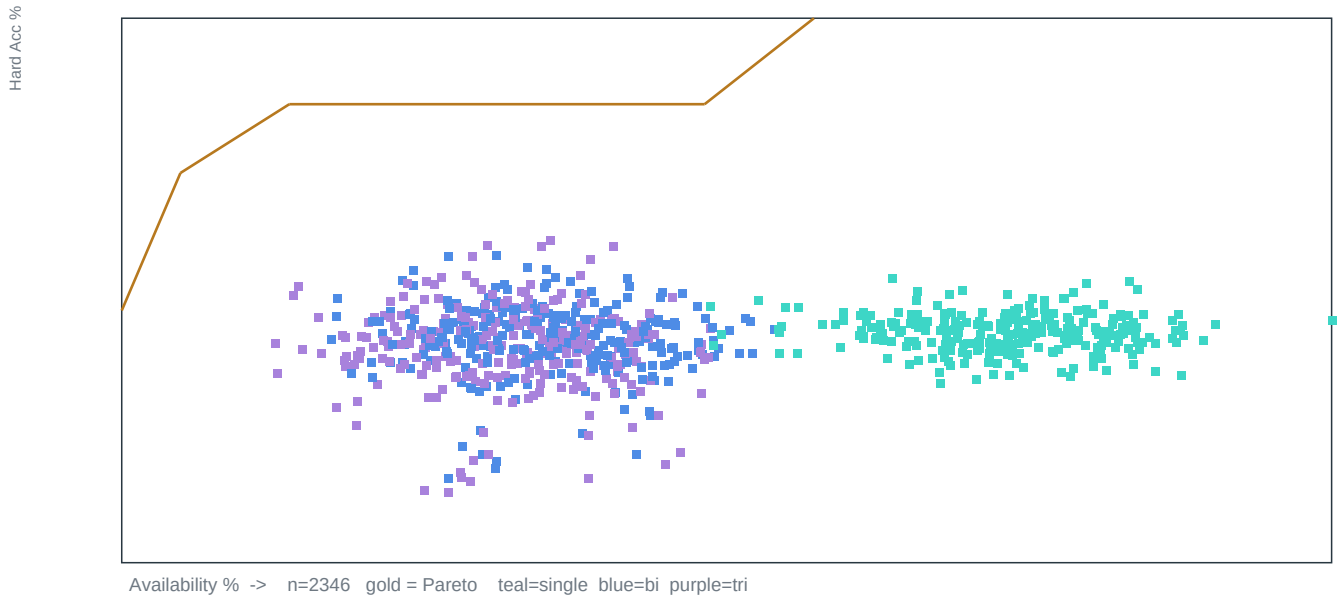
	bicameralx2	singlex1	tricameralx3
MeshBP	26	25	25
Mesh[T]	25	25	25
Mesh[T]Alt	25	24	28
Mesh[T]Chain	24	25	25
Mesh[T][S]	26	24	24
Mesh[T][S][FP]	23	24	24
Mesh[T][S]Sparse	26	27	25
Step[T]Alt	25	25	26
Step[T][S]	25	25	24
[T]Alt	25	25	25
[T][S]	24	25	24
[T][S][FP]	24	25	28
[T][S][HP]	24	25	27
[T][S][HP]Async	23	25	24
[T][S][L]	23	24	24
[T][S][L]Cache	26	24	25
[T][S]Sparse	24	25	26
sgd	23	25	22
step_sgd	20	25	19
step_tween	25	25	25
step_tween_chain	26	25	25
tween	25	25	23
tween_chain	25	25	24

Mean Avail, every mode x arch

Mean Avail, every mode x arch

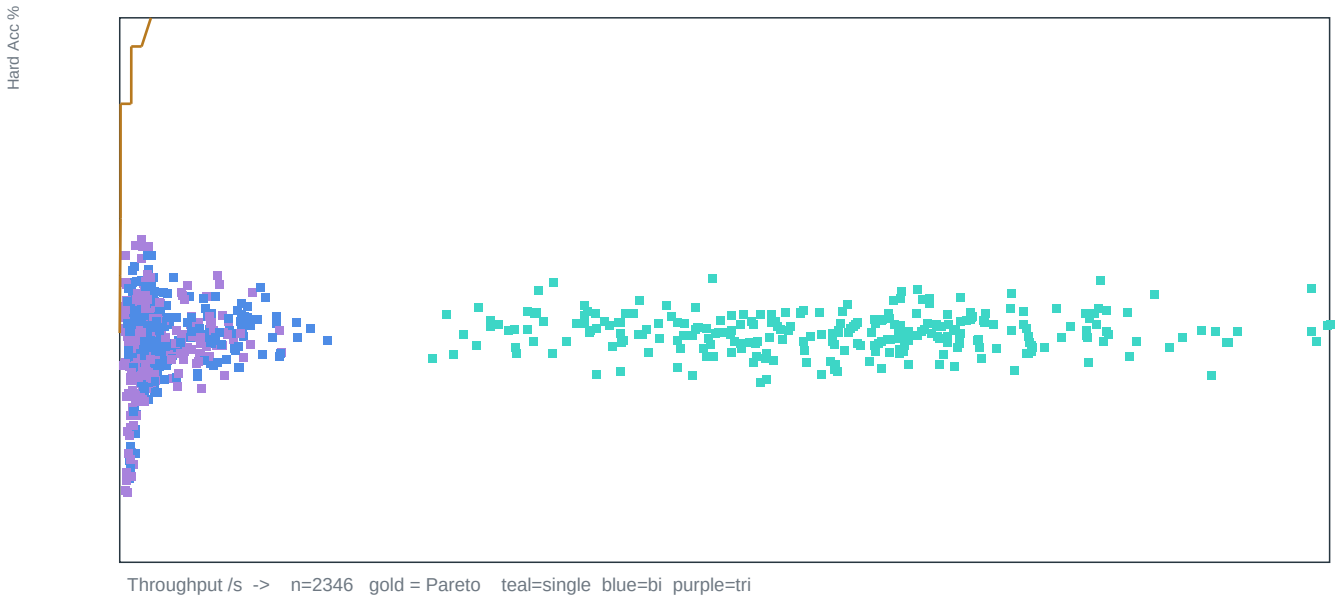
	bicamerax2	singlex1	tricamerax3
MeshBP	21	37	19
Mesh[T]	21	34	19
Mesh[T]Alt	14	28	14
Mesh[T]Chain	21	36	19
Mesh[T][S]	30	41	29
Mesh[T][S][FP]	29	39	30
Mesh[T][S]Sparse	35	39	34
Step[T]Alt	14	25	13
Step[T][S]	22	34	21
[T]Alt	14	27	14
[T][S]	30	40	29
[T][S][FP]	30	40	29
[T][S][HP]	31	40	30
[T][S][HP]Async	29	39	29
[T][S][L]	25	36	24
[T][S][L]Cache	29	41	29
[T][S]Sparse	35	40	34
sgd	24	40	22
step_sgd	20	36	18
step_tween	17	32	17
step_tween_chain	18	34	16
tween	22	36	21
tween_chain	22	38	20

Pillars - Availability vs hard Acc

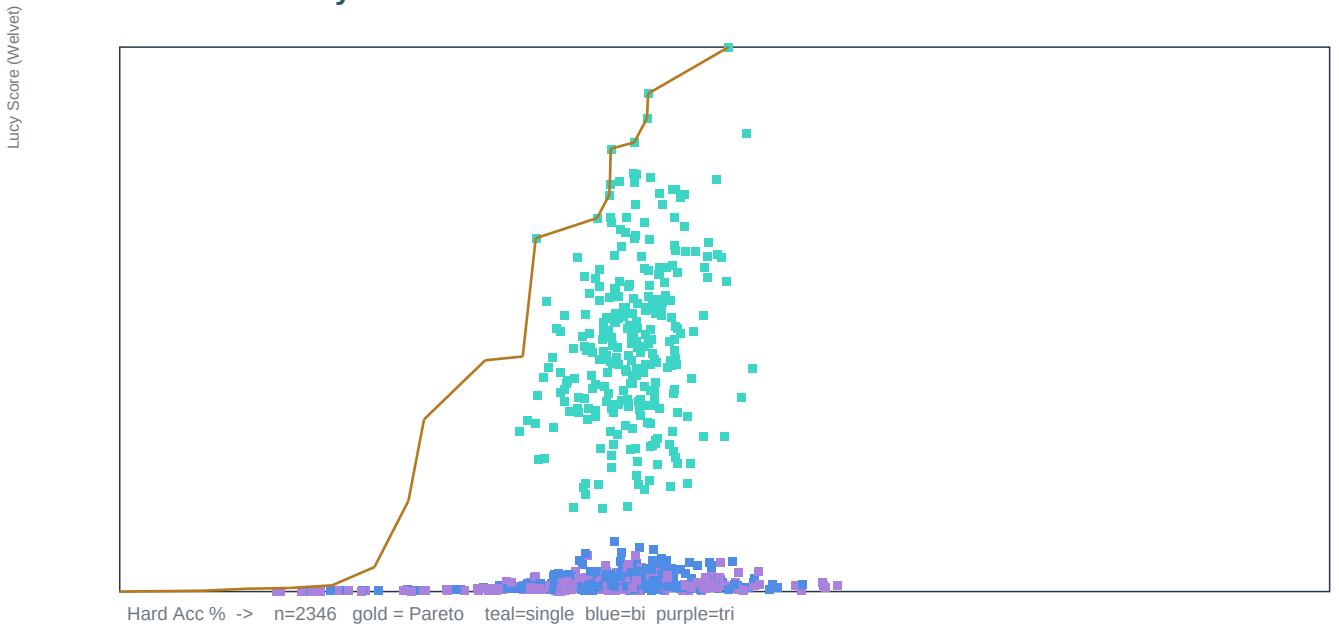


Pillars - Throughput vs hard Acc

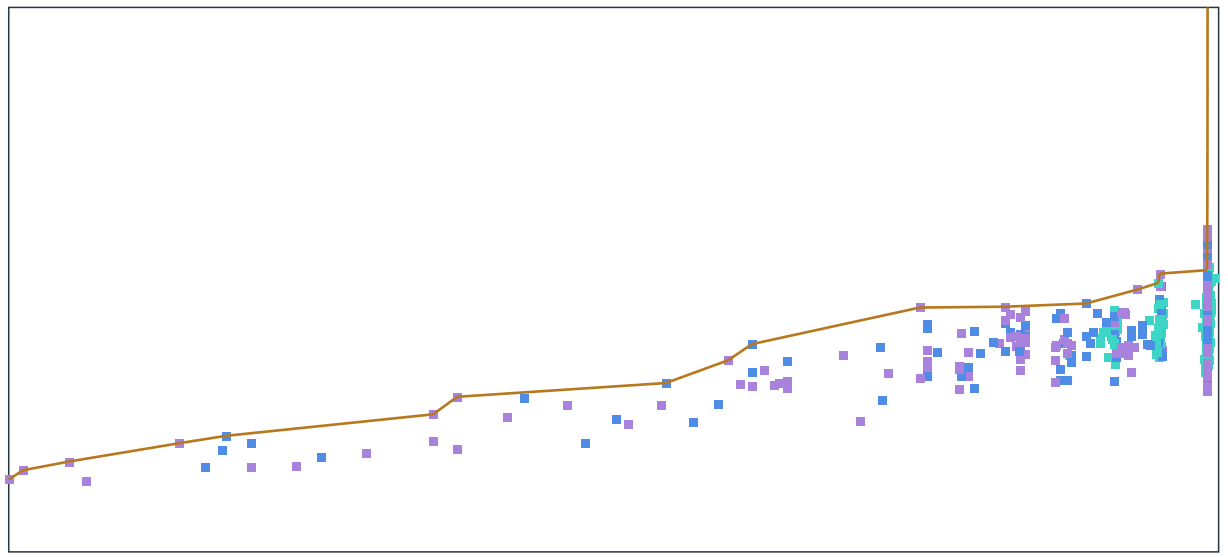
Pillars - Throughput vs hard Acc



Pareto - hard Acc vs Lucy Score

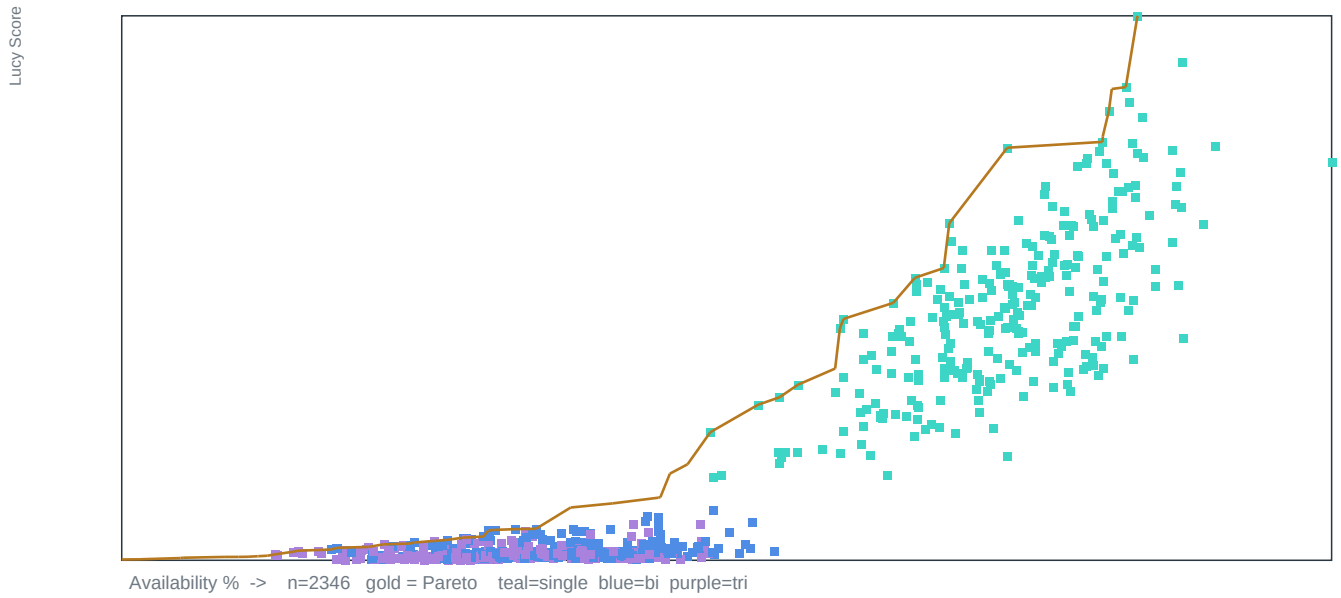


SoftAcc (serve-confidence) vs hard Acc

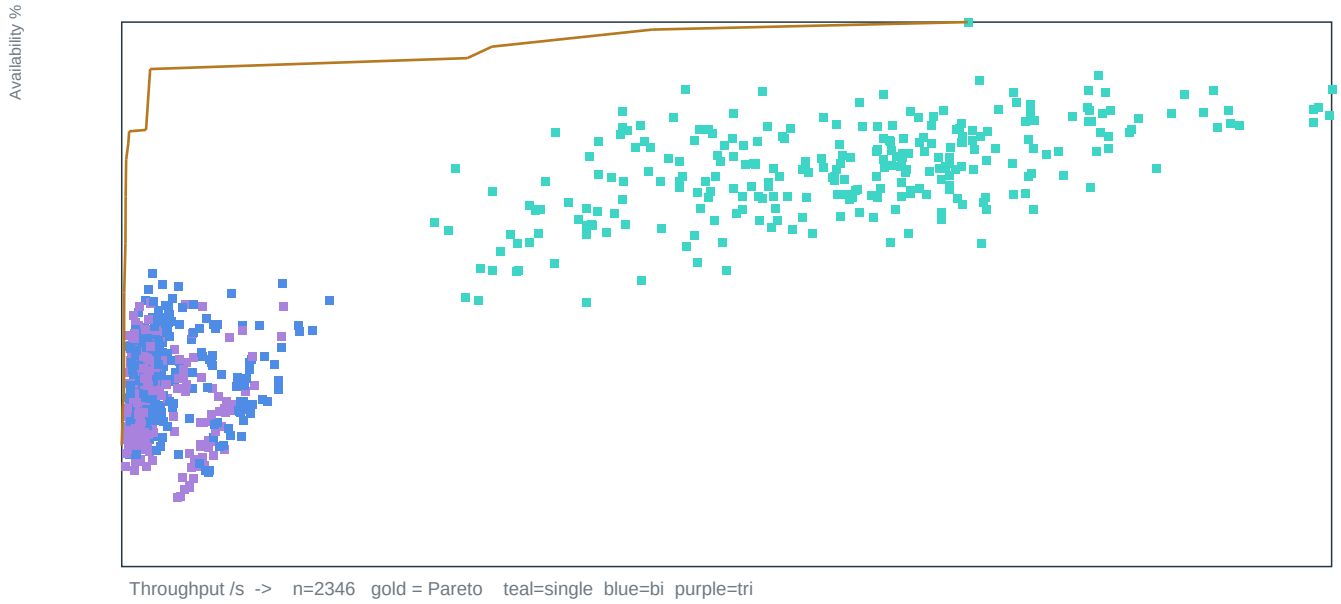



SoftAcc % -> n=2346 gold = Pareto teal=single blue=bi purple=tri
Hard Acc %

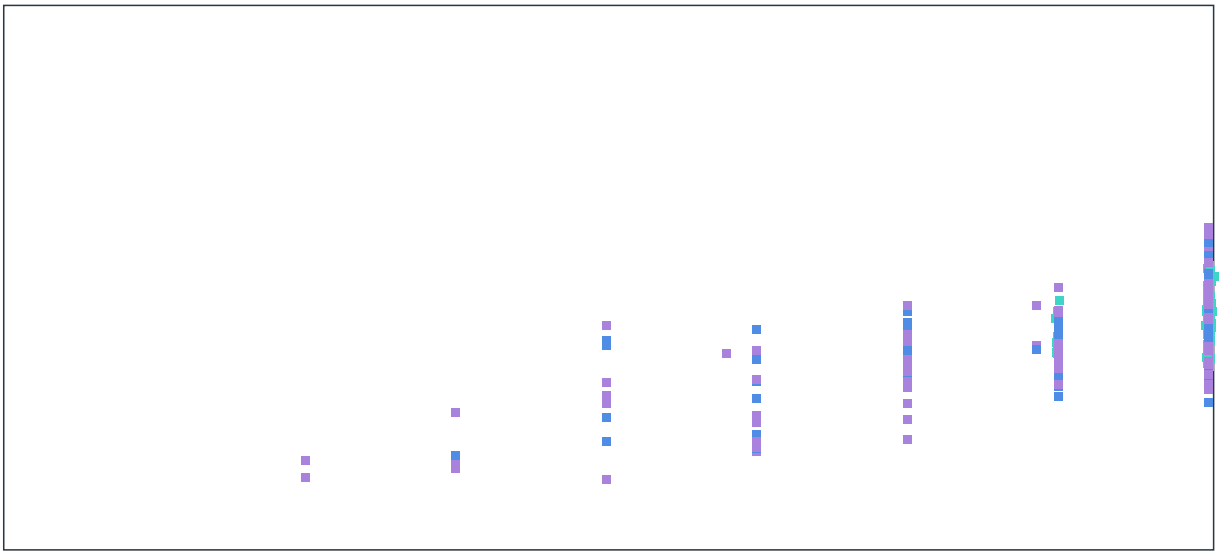
Avail vs Lucy Score (duty clock)



Pillars - Throughput vs Availability



AdaptPct vs hard Acc



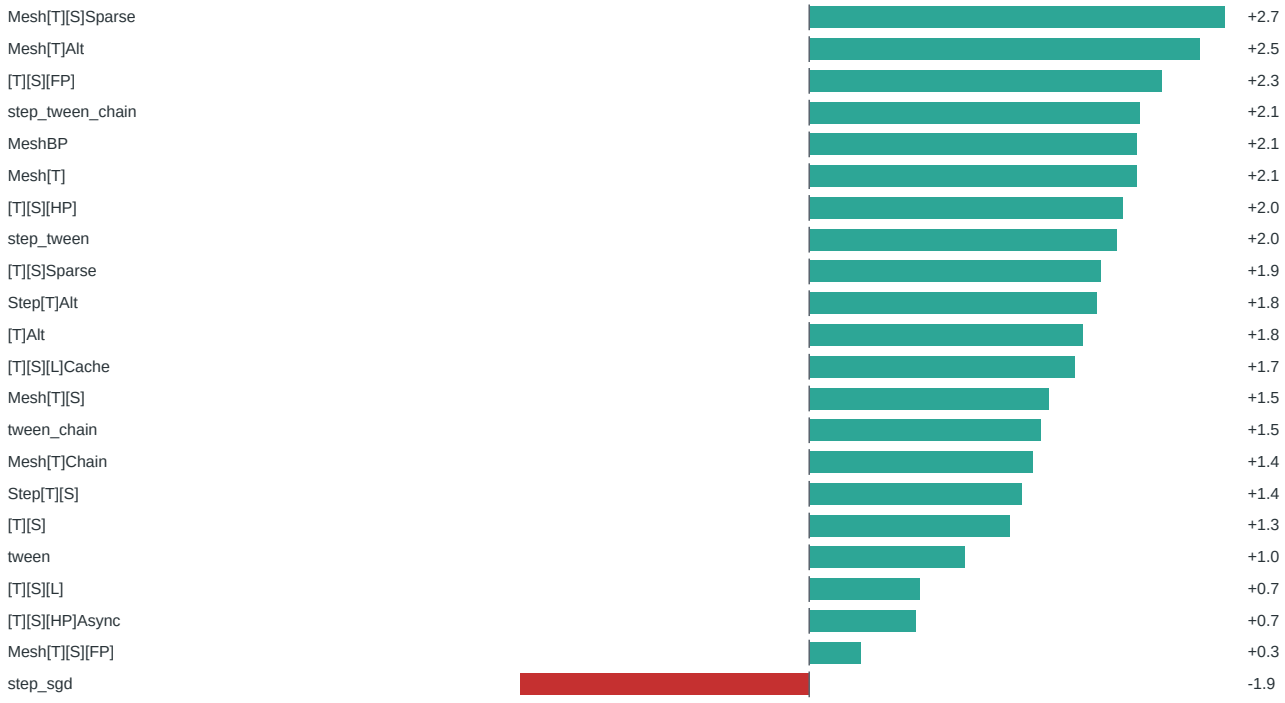

AdaptPct % -> n=2346 gold = Pareto teal=single blue=bi purple=tri
Hard Acc %

vs sgd - matched dtype x format x arch

AccDelta is the honest column. ScoreDelta is usually Availability (duty clock), not a better chain rule. Acc win = AccDelta > 0.5. Score win = ScoreDelta > 1. Baseline is discovered from the board, not a frozen StepBP list.

mode	n	AccD	Acc win%	SoftD	AvailD	ThruD	ScoreD	Score win%
Mesh[T][S]Sparse	102	+2.7	64	+2.0	+7.8	-2022	-179.3	24
Mesh[T]Alt	102	+2.5	60	+2.0	-9.6	-2339	-238.8	0
[T][S][FP]	102	+2.3	58	+2.0	+4.5	-994	-88.1	46
step_tween_chain	102	+2.1	61	+2.0	-5.6	-865	-107.3	2
MeshBP	102	+2.1	57	+2.0	-2.7	-749	-82.4	7
Mesh[T]	102	+2.1	66	+2.0	-3.8	-1141	-127.2	6
[T][S][HP]	102	+2.0	52	+2.0	+5.2	-684	-57.9	63
step_tween	102	+2.0	60	+1.9	-6.2	-923	-119.1	2
[T][S]Sparse	102	+1.9	50	+2.0	+7.9	-1486	-134.4	44
Step[T]Alt	102	+1.8	62	+1.9	-11.3	-2211	-237.0	0
[T]Alt	102	+1.8	51	+2.0	-10.2	-1928	-213.5	0
[T][S][L]Cache	102	+1.7	50	+2.0	+4.6	-1171	-106.2	36
Mesh[T][S]	102	+1.5	49	+2.0	+4.8	-1701	-157.9	18
tween_chain	102	+1.5	55	+1.8	-1.7	-291	-30.0	24
Mesh[T]Chain	102	+1.4	55	+2.0	-3.1	-1034	-111.5	6
Step[T][S]	102	+1.4	53	+2.0	-2.5	-1189	-136.4	9
[T][S]	102	+1.3	52	+2.0	+4.6	-750	-62.2	61
tween	102	+1.0	54	+1.2	-2.2	-447	-58.3	21
[T][S][L]	102	+0.7	46	+2.0	+0.0	-947	-108.6	28
[T][S][HP]Async	102	+0.7	54	+2.0	+3.9	-1461	-140.5	26
Mesh[T][S][FP]	102	+0.3	48	+2.0	+4.1	-1999	-190.8	10
step_sgd	102	-1.9	27	-1.4	-3.8	-454	-67.3	4

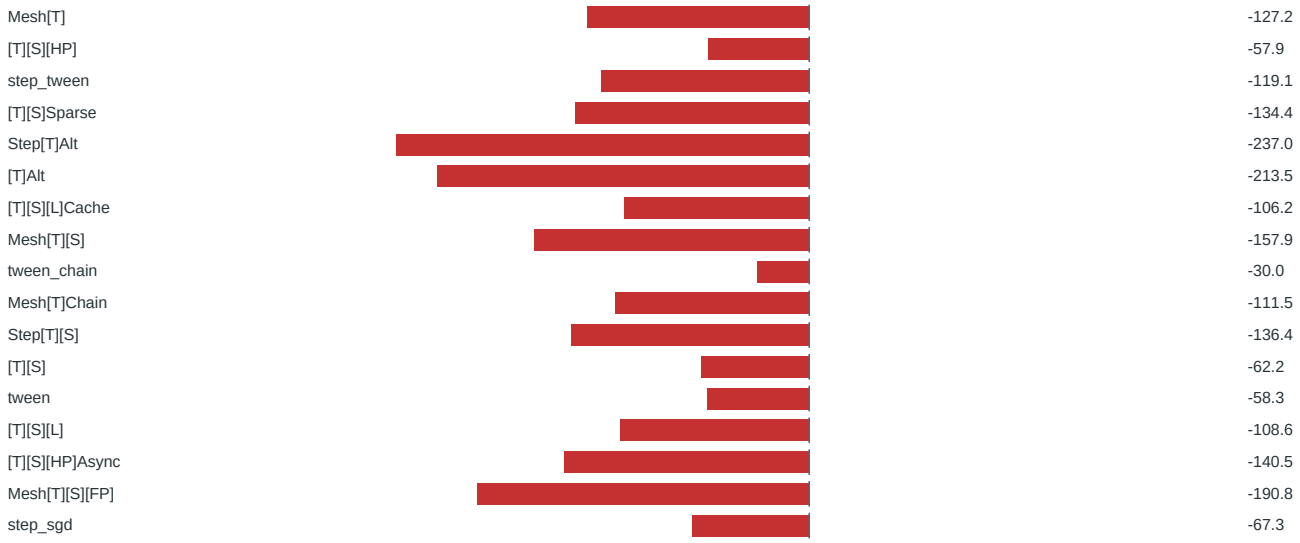
mean AccD vs sgd



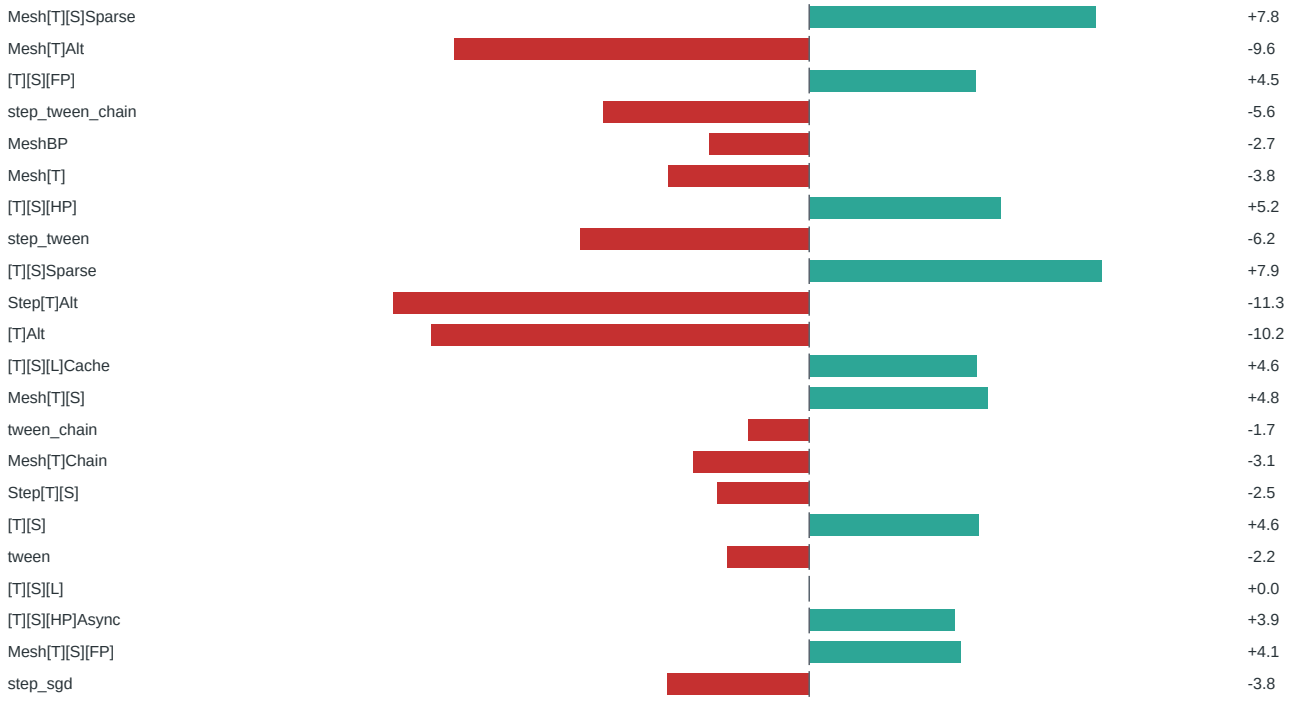
mean ScoreD vs sgd (duty clock)



mean ScoreD vs sgd (duty clock)



mean AvailD vs sgd



AccD vs sgd, every mode x dtype (cols 1-12)

AccD vs sgd, every mode x dtype (cols 1-12)

	bfloat16	binary	complex128	complex64	float16	float32	float64	fp4	fp6	fp8e4m3	fp8e5m2	int
MeshBP	-0	-6	+3	+1	+2	+1	+1	+3	+12	-2	+3	+1
Mesh[T]	-1	-4	+8	+0	-3	+3	+1	+4	+6	+2	-0	+1
Mesh[T]Alt	-1	-4	+7	-4	+5	-0	+5	+5	+0	+6	+4	+8
Mesh[T]Chain	+0	-8	+2	+1	-1	+6	+0	+4	+12	+3	+0	-2
Mesh[T][S]	-3	-7	+14	+3	+3	-7	+0	+6	+14	+7	-2	+0
Mesh[T][S][FP]	+1	-6	-4	-1	+2	+1	+2	-1	+5	-3	+2	-2
Mesh[T][S]Sparse	-5	-2	+7	-5	-1	+6	+8	+5	+6	-3	+4	+3
Step[T]Alt	-0	-0	+4	-1	+3	-2	+1	+2	+5	-1	+3	+0
Step[T][S]	+2	-6	+1	+1	-1	+3	-2	+0	+5	-1	-1	+1
[T]Alt	-1	-1	-0	+3	+2	-2	-1	-2	+11	-0	+2	+2
[T][S]	+1	-4	-4	+1	-0	+0	+0	+4	+4	-3	+4	-1
[T][S][FP]	+2	-3	+3	+5	+0	+9	+3	+5	+20	-6	-1	-1
[T][S][HP]	+2	+1	+5	+3	-3	+2	+4	+3	+1	-2	-3	+1
[T][S][HP]Async	-6	-3	+6	+1	+2	+2	-3	+5	+8	+2	+6	+2
[T][S][L]	+5	-13	+10	+3	+5	-0	-3	+1	+17	-3	+1	-0
[T][S][L]Cache	+5	-0	+3	+1	-3	+0	+3	+3	+7	+6	-8	-4
[T][S]Sparse	-4	-4	+2	-0	+1	-2	+3	+4	+4	-1	-4	+11
step_sgd	-3	-1	-4	-3	+1	+2	-0	-0	-2	-1	+2	-3
step_tween	+4	-4	-1	+0	+3	+0	-1	+2	+8	+1	+3	+4
step_tween_chain	-1	-3	+3	+0	+3	-1	-1	+3	+9	+2	+1	+1
tween	-1	-5	+2	-4	+3	-1	+1	+1	+4	+1	+1	+1
tween_chain	-0	-5	+4	-0	-1	+0	-1	+1	+10	+1	-1	+0

AccD vs sgd, every mode x dtype (cols 13-24)

AccD vs sgd, every mode x dtype (cols 13-24)

	int16	int2	int3	int32	int4	int5	int6	int64	int8	nf4	ternary	uint
MeshBP	+0	+2	+5	+3	+1	+8	+8	+2	-1	+4	-2	+0
Mesh[T]	+1	+2	+2	+6	-1	+3	+6	+2	+2	+3	+1	-2
Mesh[T]Alt	+1	+6	-5	+6	+2	+12	+8	+7	+4	-4	-3	-8
Mesh[T]Chain	-3	-1	+2	+4	-3	+3	+5	+0	+1	-4	+0	+1
Mesh[T][S]	+2	-1	-4	+4	-0	-2	+0	+2	-3	+5	-1	-0
Mesh[T][S][FP]	-5	-1	+4	-5	-1	+2	+3	-0	+3	-7	-5	+6
Mesh[T][S]Sparse	+9	-1	-2	+2	-2	+6	-0	-1	+0	+6	+0	-3
Step[T]Alt	-8	+0	-1	+5	+0	+14	+2	+2	-2	+1	+1	-1
Step[T][S]	-1	-4	+4	+2	+0	+4	+3	-1	+1	-2	-2	+8
[T]Alt	+4	-0	+1	+1	+2	+9	+4	+2	+2	+1	-3	+1
[T][S]	+1	-2	+4	+1	-0	+7	+3	+1	-0	-3	-1	+5
[T][S][FP]	+0	-5	+1	+1	-4	+5	+8	+10	+2	-4	-1	+9
[T][S][HP]	+7	-1	-5	+3	-2	+1	+5	-1	+4	+5	-1	+2
[T][S][HP]Async	-2	-3	+3	+3	-2	+9	-3	-4	+1	+7	-1	+7
[T][S][L]	-3	+1	-2	-2	-1	+4	+11	-2	-1	+5	+3	+0
[T][S][L]Cache	-2	+1	+1	+1	-5	+14	+4	+7	-3	-3	-4	-3
[T][S]Sparse	-1	+0	-3	+1	-3	+4	+13	+9	-0	-2	+1	-1
step_sgd	-1	-2	-8	+2	+3	-5	-5	-0	-2	-2	-4	-4
step_tween	-1	+1	+1	+2	-1	+4	+8	+0	+2	+2	+1	+3
step_tween_chain	-1	-0	+4	+3	+1	+8	+6	-1	+1	+1	-2	+5
tween	+3	+1	+1	+1	+2	+4	+0	+1	+0	+0	-2	+0
tween_chain	+3	+0	+1	+4	+2	+6	+4	+2	-0	+1	-1	+1

AccD vs sgd, every mode x dtype (cols 25-34)

AccD vs sgd, every mode x dtype (cols 25-34)

	uint16	uint2	uint3	uint32	uint4	uint5	uint6	uint64	uint8	uintptr
MeshBP	-2	-1	+6	-1	+1	+6	+6	-0	+2	+5
Mesh[T]	+3	-2	+5	+6	-1	+6	+8	+5	-2	+0
Mesh[T]Alt	-13	+0	-2	+5	+7	+4	+5	+7	+6	+8
Mesh[T]Chain	+1	-3	+8	+0	+3	+5	+8	+0	+1	+2
Mesh[T][S]	+2	+5	-7	+2	-1	+4	+8	+1	+7	+1
Mesh[T][S][FP]	-6	-2	+1	+1	+2	+10	+8	+1	+5	-0
Mesh[T][S]Sparse	-2	-1	+3	+7	+5	+18	+6	+7	+6	+4
Step[T]Alt	+9	-0	+7	+1	-1	+5	+6	+1	+0	+8
Step[T][S]	+4	-3	+7	+0	+2	+12	+6	-1	+3	+1
[T]Alt	+5	-8	+2	+2	-0	+13	+8	+6	-4	-1
[T][S]	+1	+4	+4	+5	+2	+7	+2	+1	+0	-1
[T][S][FP]	-0	+0	+2	+9	+4	+2	+9	+2	-5	-4
[T][S][HP]	+1	-11	+5	+6	+6	+0	+8	+1	+4	+17
[T][S][HP]Async	+3	-3	-1	+0	-2	-3	-2	-2	+3	-7
[T][S][L]	-8	-6	-5	-8	+1	+12	+3	+4	-2	-3
[T][S][L]Cache	+1	+2	-5	+6	+4	+12	+11	-2	+2	+3
[T][S]Sparse	+8	+4	+1	+1	+4	+11	+3	-4	+5	+2
step_sgd	-3	-3	-4	-1	-0	+0	-5	-3	-2	-2
step_tween	+2	+1	+4	+2	+1	+8	+8	+1	-0	+2
step_tween_chain	+3	-1	+6	+5	+0	+7	+6	+1	+2	+2
tween	+2	-0	+5	-0	-1	+6	+1	+0	+2	+4
tween_chain	+4	-1	+0	-1	+1	+6	+3	+3	-1	+4

ScoreD vs sgd, every mode x dtype (cols 1-12)

ScoreD vs sgd, every mode x dtype (cols 1-12)

	bfloat16	binary	complex128	complex64	float16	float32	float64	fp4	fp6	fp8e4m3	fp8e5m2	int
MeshBP	-189	-231	-88	-175	-57	-123	-96	+40	+16	-150	-30	-37
Mesh[T]	-171	-270	-88	-165	-147	-189	-235	-74	-56	-136	-94	-124
Mesh[T]Alt	-303	-437	-212	-247	-248	-356	-274	-226	-128	-277	-252	-198
Mesh[T]Chain	-131	-379	-65	-132	-128	-60	-106	-32	-47	-195	-138	-84
Mesh[T][S]	-181	-298	-125	-166	-149	-299	-177	-129	-65	-184	-144	-103
Mesh[T][S][FP]	-215	-384	-131	-204	-225	-312	-227	-157	-94	-249	-184	-133
Mesh[T][S]Sparse	-246	-338	-157	-232	-217	-234	-207	-139	-77	-236	-161	-158
Step[T]Alt	-292	-407	-216	-247	-240	-375	-287	-190	-122	-278	-245	-206
Step[T][S]	-152	-291	-134	-171	-167	-208	-217	-125	-45	-187	-184	-91
[T]Alt	-273	-381	-196	-214	-230	-318	-214	-169	-102	-250	-236	-152
[T][S]	-134	-131	-70	-67	-130	-194	-88	+21	+21	-85	-101	-26
[T][S][FP]	-88	-256	-81	-96	-71	-149	-205	+45	-13	-83	-69	-69
[T][S][HP]	-172	-177	-44	+23	-35	-159	-164	+139	+26	-115	+36	-99
[T][S][HP]Async	-220	-302	-95	-171	-138	-178	-223	-52	-32	-168	-181	-62
[T][S][L]	-113	-327	-48	-127	-13	-153	-148	+23	-8	-198	-180	-65
[T][S][L]Cache	-178	-169	-67	-125	-117	-211	-124	-33	-20	-118	-137	-91
[T][S]Sparse	-229	-239	-119	-181	-161	-182	-155	-66	-63	-130	-140	-113
step_sgd	-115	-179	-61	-67	-64	-75	-104	-70	-24	-52	+0	-76
step_tween	-86	-233	-121	-163	-163	-210	-121	-54	-71	-166	-87	-99
step_tween_chain	-144	-284	-87	-78	-41	-212	-153	-73	-53	-150	-145	-96
tween	-122	-224	+19	-92	-91	-73	-83	-38	-2	-90	-39	-17
tween_chain	-83	-132	+25	-114	-74	+3	-34	+78	+24	+53	+48	-44

ScoreD vs sgd, every mode x dtype (cols 13-24)

ScoreD vs sgd, every mode x dtype (cols 13-24)

	int16	int2	int3	int32	int4	int5	int6	int64	int8	nf4	ternary	uint
MeshBP	-94	-170	-60	-49	-109	-13	-39	-133	-65	-79	-50	-65
Mesh[T]	-158	-112	-104	-37	-191	-84	-134	-196	-113	-88	-145	-35
Mesh[T]Alt	-275	-260	-189	-183	-324	-149	-171	-272	-277	-209	-267	-190
Mesh[T]Chain	-188	-260	-51	-35	-174	-49	-100	-133	-65	-124	-63	-66
Mesh[T][S]	-221	-195	-114	-84	-227	-107	-129	-203	-186	-153	-215	-85
Mesh[T][S][FP]	-231	-237	-157	-161	-266	-117	-154	-227	-195	-177	-258	-132
Mesh[T][S]Sparse	-199	-202	-135	-135	-223	-109	-144	-234	-156	-172	-186	-126
Step[T]Alt	-260	-304	-189	-185	-330	-138	-189	-271	-285	-198	-284	-178
Step[T][S]	-126	-212	-83	-72	-247	-71	-94	-176	-95	-122	-177	-75
[T]Alt	-240	-257	-172	-159	-313	-133	-168	-242	-253	-189	-267	-133
[T][S]	-105	-102	-46	-17	-121	-28	-39	-119	-35	-73	-29	+34
[T][S][FP]	-146	-127	-74	-10	-231	-36	-89	-74	-77	-165	-74	+24
[T][S][HP]	-64	-89	-13	-11	-48	-79	-28	-102	-109	-38	+109	-18
[T][S][HP]Async	-131	-186	-82	-72	-238	-54	-122	-191	-146	-138	-208	-94
[T][S][L]	-102	-138	-91	-84	-176	-42	-59	-123	-85	-85	-127	-32
[T][S][L]Cache	-141	-58	-87	-78	-185	-25	-106	-178	-122	-133	-151	-48
[T][S]Sparse	-197	-135	-140	-96	-204	-107	-123	-168	-85	-101	-109	-76
step_sgd	-62	-116	-75	+13	-109	-63	-81	-43	-92	-69	-83	-10
step_tween	-157	-135	-98	-74	-199	-80	-116	-165	-102	-108	-49	-60
step_tween_chain	-126	-150	-87	-70	-154	-89	-100	-131	-114	-79	-140	-60
tween	-44	-42	-26	-41	-48	-51	-85	-112	-99	-49	-14	-10
tween_chain	-26	-7	-21	+40	-67	+56	-49	-54	-40	-42	-30	-11

ScoreD vs sgd, every mode x dtype (cols 25-34)

ScoreD vs sgd, every mode x dtype (cols 25-34)

	uint16	uint2	uint3	uint32	uint4	uint5	uint6	uint64	uint8	uintptr
MeshBP	-100	-152	-23	-98	-63	-82	-17	-41	-79	-100
Mesh[T]	-127	-223	-59	-117	-105	-97	-84	-77	-185	-101
Mesh[T]Alt	-220	-286	-143	-257	-248	-179	-146	-179	-313	-222
Mesh[T]Chain	-84	-136	-1	-172	-86	-81	-102	-7	-150	-163
Mesh[T][S]	-121	-231	-105	-137	-148	-137	-78	-105	-219	-150
Mesh[T][S][FP]	-182	-235	-111	-214	-189	-130	-116	-127	-219	-136
Mesh[T][S]Sparse	-170	-225	-120	-214	-183	-145	-115	-131	-213	-158
Step[T]Alt	-226	-287	-144	-246	-218	-177	-151	-163	-315	-214
Step[T][S]	-99	-165	-11	-146	-123	-118	-99	-70	-196	-88
[T]Alt	-144	-286	-121	-238	-224	-165	-151	-162	-325	-182
[T][S]	-3	+14	+120	-113	-98	-72	-61	-49	-108	-82
[T][S][FP]	-29	-145	-58	-6	-119	-115	-96	+7	-147	-75
[T][S][HP]	-105	-219	-65	-112	-21	-87	-90	+63	-7	-96
[T][S][HP]Async	-144	-222	-53	-127	-107	-135	-90	-69	-201	-145
[T][S][L]	-91	-208	-77	-183	-111	-64	-58	-79	-209	-114
[T][S][L]Cache	-116	-124	-47	-116	-46	-104	-88	-43	-143	-81
[T][S]Sparse	-80	-152	-79	-160	-125	-105	-84	-119	-220	-124
step_sgd	-24	-166	+13	-101	-15	-32	-51	-34	-176	-24
step_tween	-107	-192	-82	-167	-110	-116	-111	-21	-124	-103
step_tween_chain	-12	-117	-52	-90	-60	-89	-96	-29	-212	-76
tween	-37	-157	+9	-46	-45	-59	-62	-3	-96	-12
tween_chain	-52	-63	-24	-110	-62	-54	-11	-5	-126	-11

AvailD vs sgd, every mode x dtype (cols 1-12)

AvailD vs sgd, every mode x dtype (cols 1-12)

	bfloat16	binary	complex128	complex64	float16	float32	float64	fp4	fp6	fp8e4m3	fp8e5m2	int
MeshBP	-4	-2	-3	-6	-3	-1	-1	-0	-3	-3	-2	-0
Mesh[T]	-4	-5	-0	-5	-6	-5	-5	-3	-6	-4	-6	-1
Mesh[T]Alt	-10	-11	-9	-10	-10	-11	-7	-11	-10	-7	-11	-7
Mesh[T]Chain	-3	-5	+0	-4	-4	-2	+0	-3	-4	-3	-6	+1
Mesh[T][S]	+5	+2	+5	+5	+6	+0	+3	+2	+7	+3	+3	+9
Mesh[T][S][FP]	+4	+3	+7	+4	+5	-0	+4	+4	+4	+3	+2	+9
Mesh[T][S]Sparse	+8	+9	+8	+6	+6	+7	+7	+8	+9	+7	+4	+8
Step[T]Alt	-10	-9	-11	-12	-13	-12	-10	-8	-14	-13	-15	-7
Step[T][S]	-4	-1	-2	-4	-4	-6	-4	-3	-2	-4	-6	-0
[T]Alt	-11	-11	-9	-11	-12	-11	-8	-7	-12	-12	-14	-3
[T][S]	+5	+3	+9	+5	+3	+1	+6	+5	+6	+5	+0	+8
[T][S][FP]	+4	+2	+7	+5	+5	+1	+0	+5	+5	+5	+3	+6
[T][S][HP]	+4	+4	+5	+4	+6	+6	+5	+5	+7	+7	+5	+9
[T][S][HP]Async	+2	+1	+7	+3	+5	-3	+3	+6	+8	+5	+1	+6
[T][S][L]	+0	-4	+2	+0	+1	-1	+1	+5	+1	+0	-2	+6
[T][S][L]Cache	+4	+3	+8	+4	+5	-0	+3	+6	+7	+6	+3	+7
[T][S]Sparse	+9	+10	+8	+7	+6	+11	+9	+9	+7	+9	+8	+10
step_sgd	-2	-2	-2	-3	-5	-5	-4	-5	-6	-5	-4	-2
step_tween	-6	-5	-5	-7	-5	-7	-2	-4	-9	-7	-6	-5
step_tween_chain	-6	-5	-5	-6	-3	-7	-5	-5	-6	-7	-6	-3
tween	-3	-2	+1	-3	-2	-4	-2	-3	-2	-4	-2	+3
tween_chain	-1	-2	-0	-3	-3	-1	-1	-2	-1	-2	-2	+2

AvailD vs sgd, every mode x dtype (cols 13-24)

AvailD vs sgd, every mode x dtype (cols 13-24)

	int16	int2	int3	int32	int4	int5	int6	int64	int8	nf4	ternary	uint
MeshBP	-3	-6	-3	-3	-3	+0	-2	-4	-1	-4	-1	-3
Mesh[T]	-2	-0	-2	-3	-6	-1	-5	-6	-6	-2	+0	-0
Mesh[T]Alt	-8	-7	-11	-11	-8	-9	-8	-8	-10	-11	-8	-9
Mesh[T]Chain	-4	-6	+2	-3	-4	+2	-2	-4	-6	-4	+0	-1
Mesh[T][S]	+4	+3	+5	+5	+7	+8	+6	+7	+1	+2	+4	+8
Mesh[T][S][FP]	+3	+4	+6	+6	+5	+8	+5	+5	+2	+4	+4	+5
Mesh[T][S]Sparse	+6	+13	+7	+7	+12	+9	+7	+9	+9	+6	+15	+9
Step[T]Alt	-10	-10	-13	-11	-9	-7	-11	-11	-11	-12	-7	-10
Step[T][S]	-2	-0	-1	-3	-2	-0	-2	-5	-1	-3	-1	-2
[T]Alt	-10	-10	-10	-11	-10	-10	-12	-11	-11	-11	-7	-9
[T][S]	+3	+1	+8	+2	+5	+7	+2	+5	+1	+4	+7	+7
[T][S][FP]	+5	+2	+5	+5	+2	+8	+7	+5	+0	+2	+9	+6
[T][S][HP]	+5	+2	+7	+6	+3	+9	+6	+6	+4	+4	+7	+6
[T][S][HP]Async	+3	+5	+6	+4	+4	+9	+6	+4	-2	+3	+4	+3
[T][S][L]	+2	+0	+1	-1	-5	+3	+2	-0	-5	-2	-3	+1
[T][S][L]Cache	+5	+5	+5	+3	+3	+7	+5	+6	-1	+5	+5	+5
[T][S]Sparse	+6	+12	+6	+8	+11	+8	+8	+8	+10	+7	+13	+8
step_sgd	-4	-4	-4	-3	-3	-1	-6	-4	-2	-6	-2	-5
step_tween	-8	-4	-5	-6	-5	-6	-8	-6	-6	-8	-1	-3
step_tween_chain	-6	-6	-5	-5	-5	-5	-6	-7	-7	-6	-4	-4
tween	-3	-2	+0	-4	-2	-2	-4	-4	-5	-2	+2	-0
tween_chain	-1	-1	-1	-2	-3	+2	-2	-3	-4	-2	-0	-0

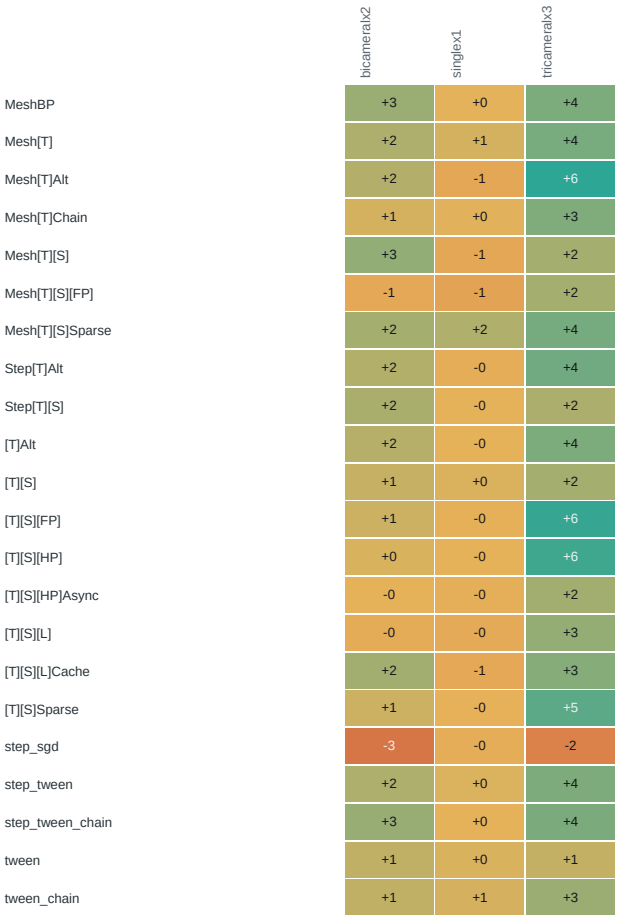
AvailD vs sgd, every mode x dtype (cols 25-34)

AvailD vs sgd, every mode x dtype (cols 25-34)

	uint16	uint2	uint3	uint32	uint4	uint5	uint6	uint64	uint8	uintptr
MeshBP	-2	-6	-3	-3	-2	-3	-3	-5	-2	-4
Mesh[T]	-4	-8	-6	-3	-4	-5	-5	-6	-2	-3
Mesh[T]Alt	-11	-13	-11	-10	-9	-11	-9	-11	-10	-9
Mesh[T]Chain	-2	-7	-3	-6	-5	-5	-2	-5	-3	-4
Mesh[T][S]	+6	+3	+6	+5	+6	+4	+6	+5	+3	+8
Mesh[T][S][FP]	+2	+1	+3	+3	+4	+5	+7	+4	+2	+4
Mesh[T][S]Sparse	+6	+6	+7	+7	+6	+6	+9	+5	+6	+9
Step[T]Alt	-14	-14	-13	-12	-11	-14	-13	-13	-12	-10
Step[T][S]	-2	-4	+1	-4	-1	-3	-2	-3	-5	+2
[T]Alt	-8	-14	-10	-8	-11	-11	-11	-11	-13	-9
[T][S]	+7	+4	+7	+5	+2	+5	+5	+4	+2	+5
[T][S][FP]	+5	+5	+5	+5	+5	+4	+8	+3	+2	+7
[T][S][HP]	+2	+2	+5	+4	+5	+4	+8	+4	+3	+8
[T][S][HP]Async	+4	+4	+4	+5	+4	+5	+5	+3	+1	+4
[T][S][L]	-1	-3	-1	+0	-1	+2	+3	-1	-4	+2
[T][S][L]Cache	+5	+4	+4	+4	+5	+5	+7	+3	+2	+6
[T][S]Sparse	+8	+7	+6	+6	+7	+6	+9	+5	+4	+7
step_sgd	-2	-5	-5	-4	-4	-5	-5	-6	-6	-2
step_tween	-8	-10	-7	-8	-8	-9	-8	-6	-6	-5
step_tween_chain	-4	-6	-8	-4	-4	-7	-7	-6	-7	-2
tween	-3	-5	-2	-3	-2	-2	-2	-5	-4	+0
tween_chain	-2	-3	-3	-1	-2	-2	-1	-5	-3	-0

AccD vs sgd, every mode x arch

AccD vs sgd, every mode x arch



Family collapse - Step* vs non-Step

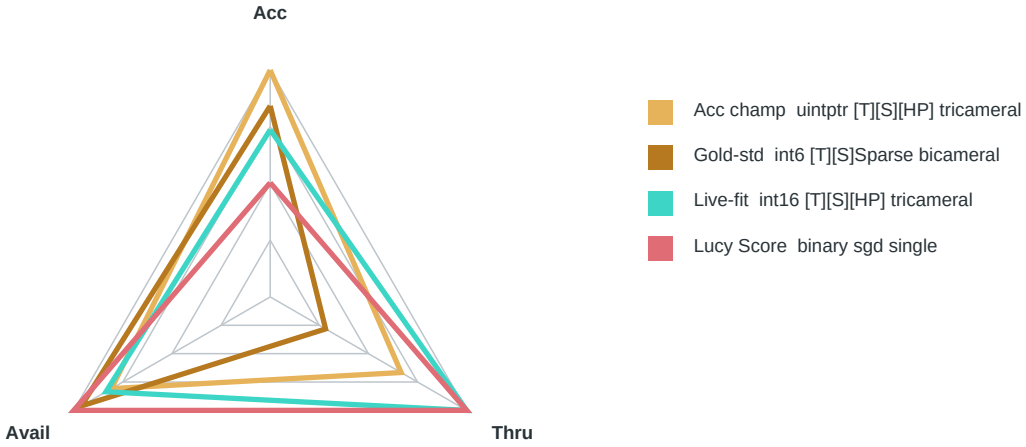
Step* is a 1D pipe (one sample enters layer 0 per tick; output is the sample that entered depth ticks ago). Non-Step of the same family is a full-chain update. AccD is a real scheduler split, not leftover warm-up forwards.

step	plain	n	mean |AccD|
Step[T]Alt	[T]Alt	102	6.05
Step[T][S]	[T][S]	102	4.43
step_sgd	sgd	102	3.11
step_tween	tween	102	2.92
step_tween_chain	tween_chain	102	3.12

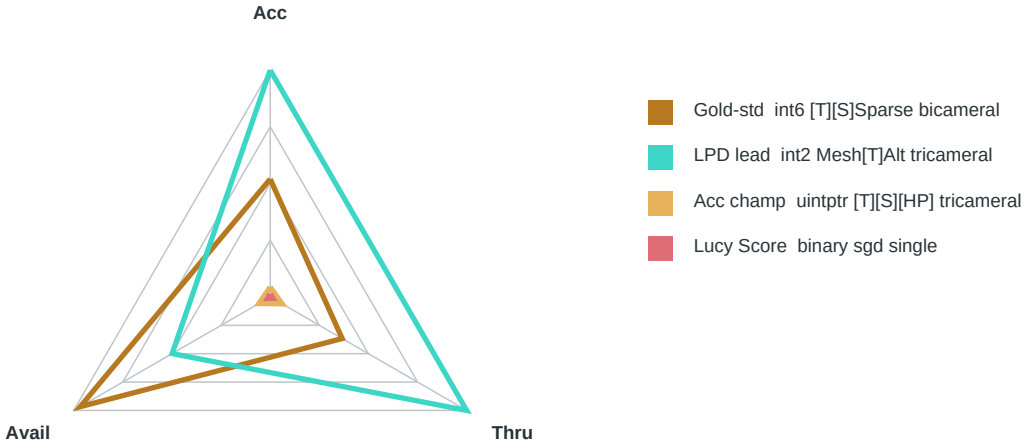
Consciousness - Acc, Throughput, Availability

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 uintptr|none|[T][S][HP]|tricameral|simd Acc 59.4 Thru 312 Avail 29.5% 92.8 KiB (RAM reference)
Lucy Score champ (T x Avail x Acc) binary|none|sgd|single|simd Score 1317.5 Acc 29.9 Soft 25 0.0 KiB
Live-fit champ (best Q) int16|none|[T][S][HP]|tricameral|simd Acc 43.8 Thru 467 Avail 30.5% 23.2 KiB
Gold-std (2+ pillars, Acc keep >= 80%, then smallest then fastest): int6|none|[T][S]Sparse|bicameral|simd mode [T][S]Sparse Acc 50.0 Thru 132 6.6 KiB
Board fastest float32|none|tween_chain|single|simd Thru 11072 (traps may own this) Best availability uint2|none|sgd|single|simd 47.0%
Learner Thru peak 467 learner Avail peak 36.5%

Consciousness radar - Acc / Thru / Avail vs learner peaks



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
[T][S]Sparse	2	56.2	6.6	226	int6 [T][S]Sparse bicameral / int [T][S]Sparse tricameral
[T][S][L]Cache	1	50.0	6.6	148	uint6 [T][S][L]Cache bicameral
[T][S][FP]	1	56.2	8.7	132	fp6 [T][S][FP] tricameral
[T][S][HP]	1	59.4	92.8	312	uintptr [T][S][HP] tricameral

Near-gold - 2+ pillars, RAM <= 50% of Acc champ

Band	Cell	Acc%	Thru%	Avail%	Q%	RAM%	xSmall	LPD	Acc	Thru	KiB
near	int6 [T][S]Sparse bicameral	84	28	96	61	7	14.1	8.64	50.0	132	6.6
near	uint6 [T][S][L]Cache bicameral	84	32	85	61	7	14.1	8.59	50.0	148	6.6
near	fp6 [T][S][FP] tricameral	95	28	93	63	9	10.7	6.72	56.2	132	8.7

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

-	int2 Mesh[T]Alt tricameral	72	34	22	38	3	32.0	12.05	42.5	159	2.9
near	int6 [T][S]Sparse bicameral	84	28	96	61	7	14.1	8.64	50.0	132	6.6
near	uint6 [T][S][L]Cache bicameral	84	32	85	61	7	14.1	8.59	50.0	148	6.6
-	fp6 Mesh[T][S] bicameral	74	23	99	55	7	14.1	7.82	43.8	108	6.6
acc	fp6 [T][S][L] bicameral	84	26	71	54	7	14.1	7.64	50.0	124	6.6
-	uint5 [T][S][L]Cache tricameral	74	27	84	55	8	12.8	7.04	43.8	126	7.3
-	int5 [T][S]Sparse tricameral	74	22	94	54	8	12.8	6.89	43.8	105	7.3
near	fp6 [T][S][FP] tricameral	95	28	93	63	9	10.7	6.72	56.2	132	8.7
-	uint5 Mesh[T][S]Sparse tricameral	74	17	99	50	8	12.8	6.39	43.8	80	7.3
-	fp8e4m3 [T][S][L]Cache tricameral	74	73	88	78	12	8.0	6.24	43.8	341	11.6
-	uint4 Mesh[T]Alt tricameral	74	13	36	33	6	15.9	5.23	43.8	62	5.8
-	int5 Step[T]Alt tricameral	74	15	45	37	8	12.8	4.72	43.8	71	7.3
acc	int5 Mesh[T]Alt bicameral	84	7	32	27	6	17.0	4.59	50.0	34	5.5
-	float16 Mesh[T][S] bicameral	77	69	89	78	19	5.3	4.13	45.8	321	17.5
-	int16 [T][S][HP] tricameral	74	100	84	85	25	4.0	3.40	43.8	467	23.2
-	bfloat16 [T][S][L]Cache tricameral	70	83	75	76	25	4.0	3.04	41.7	388	23.2
-	uint32 [T][S][L]Cache bicameral	72	86	87	81	38	2.6	2.15	42.5	402	35.0
-	float16 Mesh[T]Alt tricameral	74	17	39	37	25	4.0	1.46	43.8	79	23.2
-	uint32 Mesh[T][S]Sparse tricameral	72	43	100	67	50	2.0	1.35	42.5	201	46.4
-	uint32 Mesh[T]Alt bicameral	74	23	43	42	38	2.6	1.12	43.8	109	35.0

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

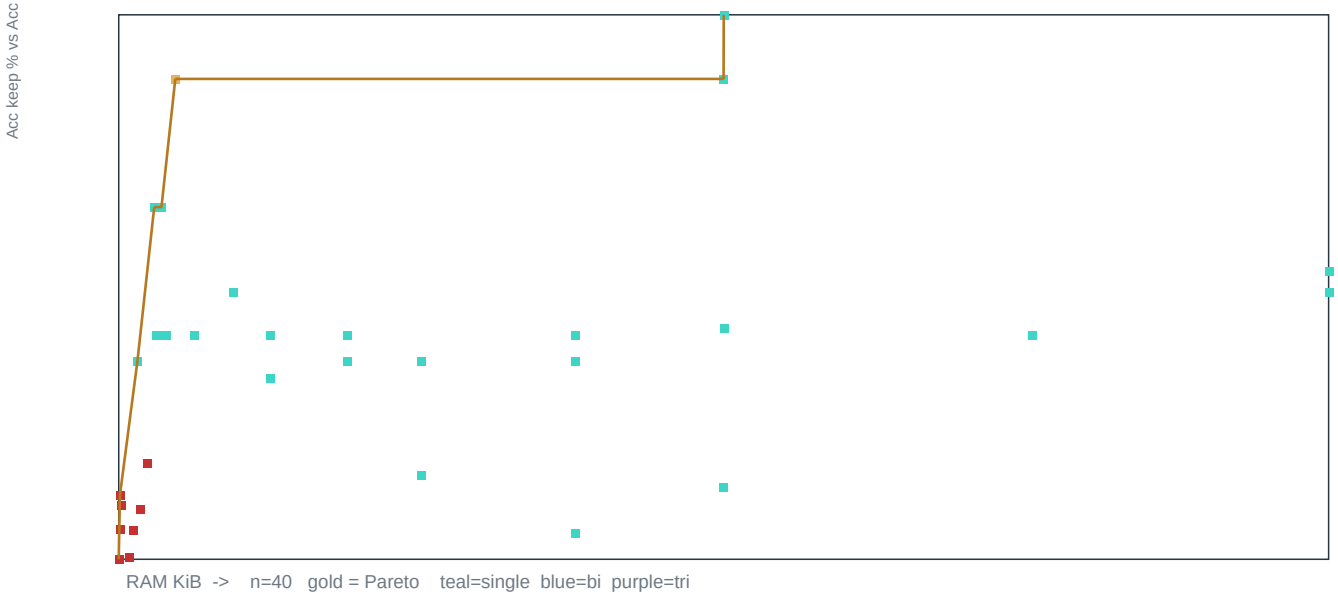
Band	Cell	Acc%	Thru%	Avail%	Q%	LPD	Thru	Avail
-	int16 [T][S][HP] tricameral	74	100	84	85	3.40	467	30.5
keep	uintptr [T][S][HP] tricameral	100	67	81	81	0.81	312	29.5
-	uint32 [T][S][L]Cache bicameral	72	86	87	81	2.15	402	31.8
-	complex64 [T][S]Sparse bicameral	74	67	96	78	1.03	314	35.0
-	fp8e4m3 [T][S][L]Cache tricameral	74	73	88	78	6.24	341	32.1
-	float16 Mesh[T][S] bicameral	77	69	89	78	4.13	321	32.5
-	bfloat16 [T][S][L]Cache tricameral	70	83	75	76	3.04	388	27.5
keep	int [T][S]Sparse tricameral	95	48	95	76	0.76	226	34.6
-	int64 [T][S][L]Cache bicameral	72	67	77	72	0.95	313	28.0
-	complex128 [T][S][L] tricameral	77	57	77	70	0.35	268	27.9

Trap - tiny RAM, Acc keep < 70% (Score/MiB and SoftAcc Score lie here)

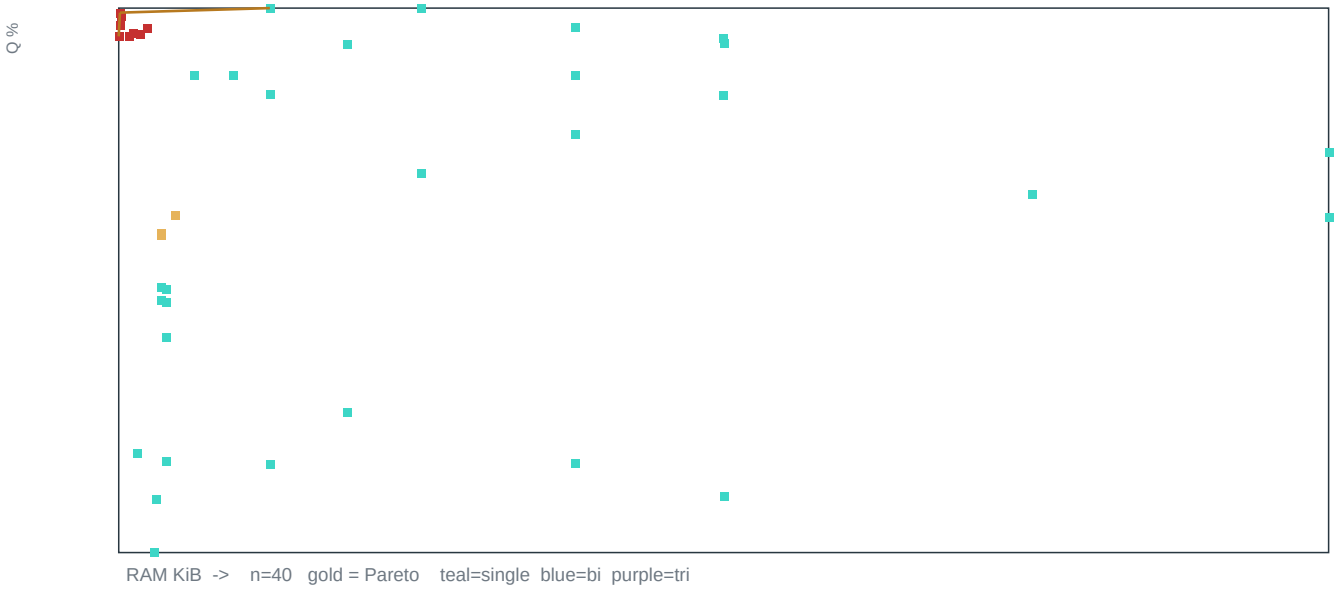
Band	Cell	Acc%	Thru%	Avail%	Q%	RAM%	xSmall	LPD	Acc	Thru	KiB
trap	binary sgd single	50	100	100	80	0	32.0	0.00	29.9	10899	0.0
trap	binary step_sgd single	47	100	100	78	0	32.0	0.00	27.7	8156	0.0
trap	binary tween single	41	100	100	74	0	32.0	0.00	24.5	7692	0.0
trap	binary tween_chain single	44	100	100	76	0	32.0	0.00	26.0	8943	0.0
trap	binary step_tween single	44	100	93	74	0	32.0	0.00	26.4	7906	0.0
trap	binary step_tween_chain single	41	100	85	71	0	32.0	0.00	24.5	7205	0.0
trap	binary MeshBP single	35	100	100	71	0	32.0	0.00	20.9	8188	0.0
trap	binary Mesh[T] single	43	100	94	74	0	32.0	0.00	25.7	6719	0.0
trap	binary Mesh[T]Chain single	29	100	81	62	0	32.0	0.00	17.4	5192	0.0
trap	binary [T][S] single	49	100	100	79	0	32.0	0.00	29.1	7293	0.0

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

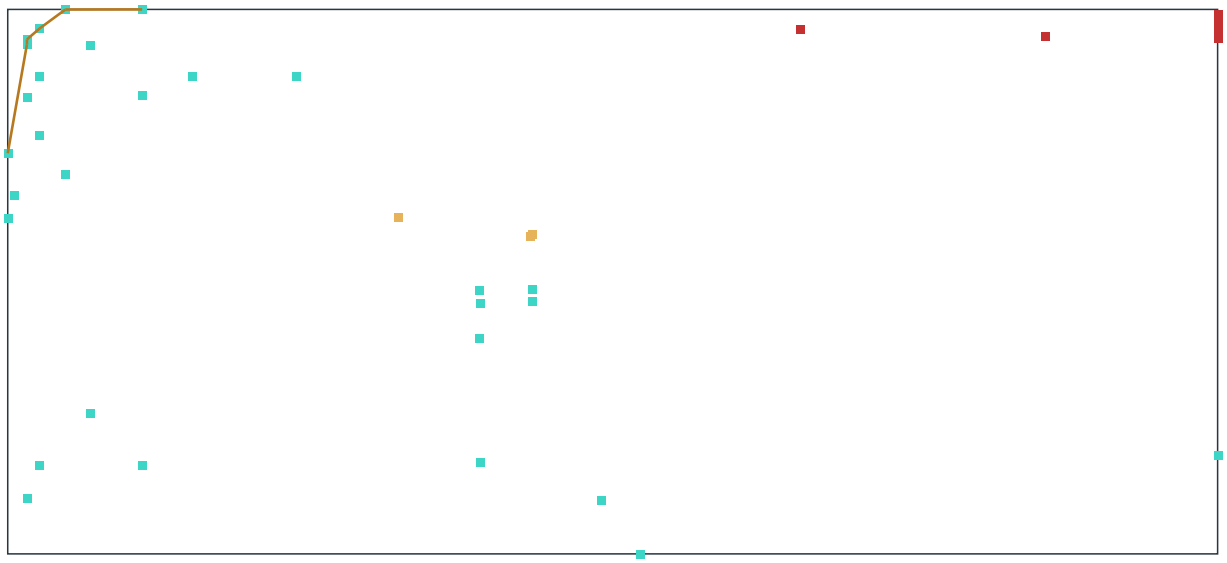
Acc keep % vs RAM KiB (gold = high Acc, low RAM vs Acc champ)



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



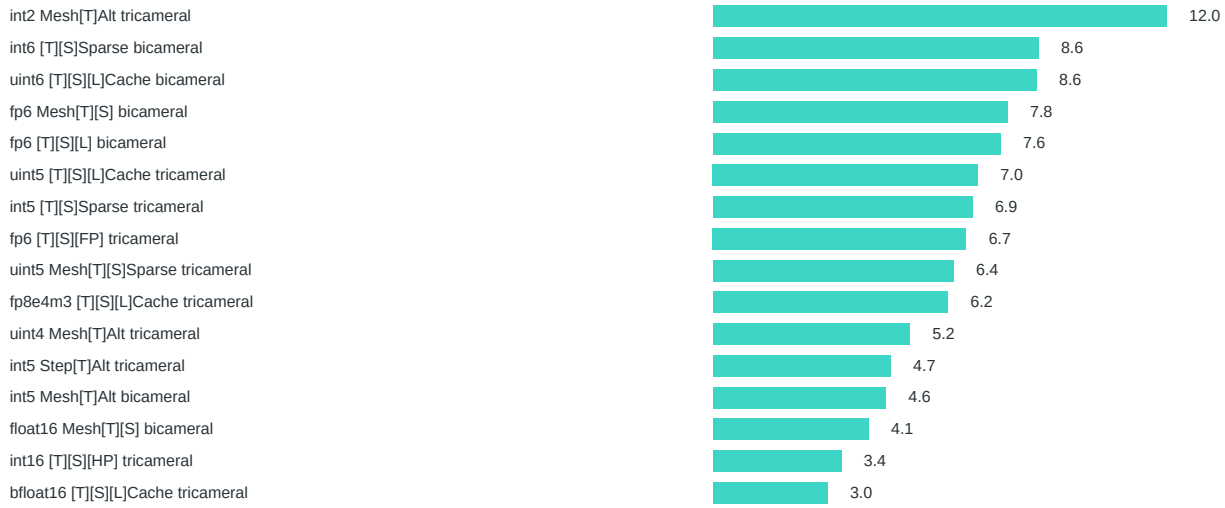
Q% vs shrink vs Acc champ (gold = upper right)



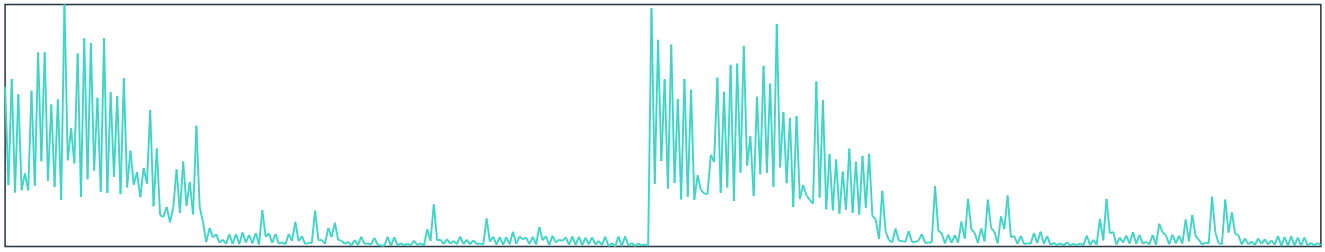
times smaller than Acc champ -> n=40 gold = Pareto teal=single blue=bi purple=tri

Q %

Top Lucy density (LPD)

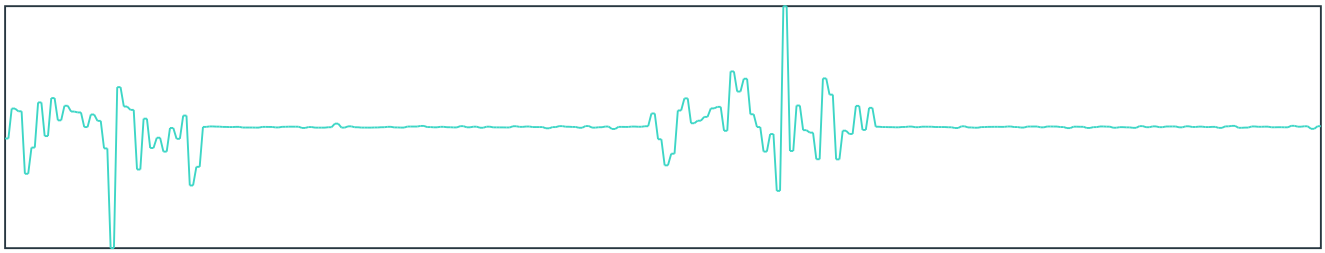


Live pulse (Score)



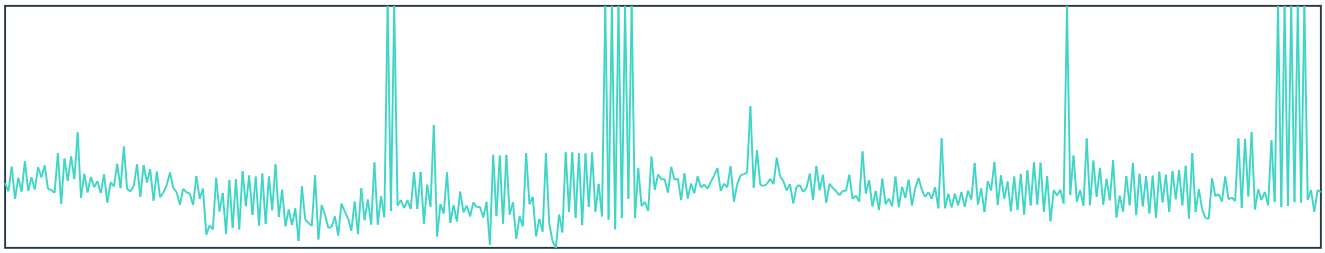
n=400 min=3.28 max=1148.23

Live pulse (SoftAcc)



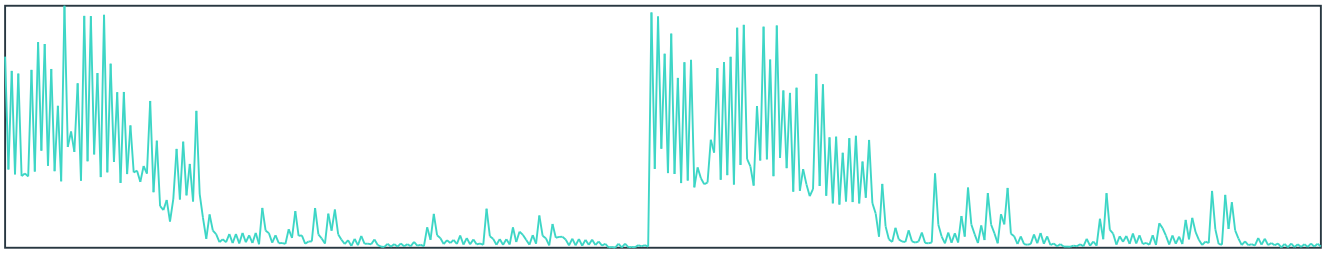
n=400 min=24.85 max=25.15

Live pulse (Availability)



n=400 min=20.53 max=100.00

Live pulse (Throughput)



n=400 min=49.18 max=9202.15

Queue by train mode (this epoch)

Mode	Done	Run	Left	Total