

Sealed Experiment Record

Sealed 2026-10-10 · Signed by the K-Veritas server
Session 20484b65 · Data hash ebe6...f49f

Abstract

This record seals 1 run (kv_run.sh) executed on Intel(R) Xeon(R) W-2145 CPU @ 3.70GHz between 2026-10-10 21:18 and 21:25 UTC. Reported results: wanda_unstructured_50_wikitext2_ppl 18.4108, wanda_2of4_wikitext2_ppl 28.2521, magnitude_unstructured_50_wikitext2_ppl 1713.59. 1 invocation in total, 0 failed. Produced with K-Veritas [1].

What this record proves

These numbers came from the sealed code at this time, unchanged since. Whether the experiment is sound is for the reader to judge.

Verify: kveritas verify <this file> or kveritas.org/verify

1 Setup

Item	Value
Session	20484b65-c227-4014-b037-a05b2a356584
Initialized	2026-10-10T21:18:14Z
Machine	167ec0d6dc9a8170
Operating system	linux / amd64
CPU	Intel(R) Xeon(R) W-2145 CPU @ 3.70GHz, 16 cores
Memory	31.0 GB
GPU	NVIDIA GeForce RTX 5060 Ti, 16311 MiB
Environment, run 1	145caa66d0f86190f7bd45e2e4a1d351300a00f10ba9bc46dcdb4db879f883e3
Disclosure	open
Source code, run 1	c967854e7625696f938cc6a0e401a54c081d09a28b444c607be34de379e0b4d2

2 Runs

#	Command	Duration	Exit	Anchored
1	bash kv_run.sh	7 minutes 39 seconds	0	at run end

1 invocation in total: 1 kept in this record, 0 failed, 0 interrupted. Every invocation is recorded by the server, including the ones not kept.

3 Results

Run 1: kv_run.sh

Metric	Final value	Step	Source
wanda_unstructured_50_actual_sparsity	0.5		explicit
wanda_unstructured_50_wikitext2_ppl	18.4108		explicit
wanda_2of4_actual_sparsity	0.5		explicit

Metric	Final value	Step	Source
wanda_2of4_wikitext2_ppl	28.2521		explicit
magnitude_unstructured_50_actual_sparsity	0.5001		explicit
magnitude_unstructured_50_wikitext2_ppl	1713.59		explicit

Inline claim	Value	Phase	Output line
wanda_unstructured_50_wikitext2_ppl	18.4108		30
wanda_2of4_wikitext2_ppl	28.2521		60
magnitude_unstructured_50_wikitext2_ppl	1713.59		90

4 Execution evidence

Coherence

Coherent (0.49): the telemetry channels move together, as one process.

Telemetry

Run	Samples	CPU time	Peak memory	Peak GPU
1	4511	193.4 s	3.72 GB	99%

5 Provenance

Run 1: kv_run.sh

Disclosure open. 36 tracked files, 5 snapshots. Every snapshot is bound into the signature.

#	Snapshot	Time	Root	Changed
0	run_start	21:18:14	f473fa4cb800bdc4	36
4	run_end	21:25:53	f473fa4cb800bdc4	0

3 snapshots with no file change omitted here; full timeline in Appendix B.

Withheld by .kveritasignore	Size	Hash
dense_ft/sparse_trainer.py	<1MB	c872c319b65c602dc8485eae
dense_ft/trainer.py	<1MB	ac91687b9db8d738da971c9c
image_classifiers/datasets.py	<1MB	525f6dc76384895bf178999f
image_classifiers/download_weights.sh	<1KB	886033203def322a7018ab86
image_classifiers/engine.py	<1MB	8d16ce1b7d85e8d288485be3
image_classifiers/layerwrapper.py	<1MB	e15c19a2bd7435e6d2bbde98
image_classifiers/main.py	<1MB	c00eb192ac46c5bd36a746f9
image_classifiers/models/convnext.py	<1MB	79272413478d85ae8cfd0ee
image_classifiers/models/deit.py	<1MB	09631adac31583813d521cd6
image_classifiers/models/mlp_mixer.py	<1MB	9b093f780682239464d511f9
image_classifiers/models/swin_transformer.py	<1MB	0856ddb313c5327c631c69ee
image_classifiers/models/vision_transformer.py	<1MB	e53df9ce85f1f4bf29fb53a1
image_classifiers/optim_factory.py	<1MB	3f909787b859212422e86d64
image_classifiers/prune_utils.py	<1MB	b72f5ef3374dcfe9dc1ba0cc
image_classifiers/utils.py	<1MB	83a400cd7bcd07e7b54b1f05
lora_ft/evaluate_ppl.py	<1MB	622b1334ec52411a12174e0b
lora_ft/finetune_lm.py	<1MB	af01cf8c2c95bd23881741d9
lora_ft/script.sh	<1KB	62c67bfe681693be2a830c1d

Activity: 39 files read, 0 files written, 6 subprocesses. Full list in Appendix B.

6 Verification

Field	Value
Signer	Signed by the K-Veritas server
Signed at	2026-10-10T21:25:54.768574+00:00
Algorithm	RSA-PSS-SHA256, 4096-bit key
Key fingerprint	eeac81653cf44ac029c4069cf2a06d9f
Data hash	ebe63d9fbaa8d39c38ecb640cf95a443f663d88873ca18a3c8c1902a8850f49f
Code bundle hash	7945ac5100d3fc6c4caef643c5992d0b2c233d2c3ce468af4eab55a77aa23858

Run anchors: 1 invocations were anchored at the server when they ended.

Checks a verifier runs

1. The stored canonical data hashes to the data hash above, and the signature verifies over data_hash:nonce:signed_at.
2. The signing key is the K-Veritas server key, not one supplied by the author.
3. Nothing was appended after the seal, and these pages hash to the value bound in the seal.
4. Each run matches the digest the server received when it ended.
5. A supplied code bundle hashes to the code bundle hash above.

References

[1] M. K. Keita and C. Homan. Computer Science Conferences Should Require Nonrepudiable Experimental Results. NeurIPS 2026 Position Paper Track. arXiv:2605.08586.

Appendix

A Full metric series

Run 1: kv_run.sh

Metric	Value	Step	Line	Source
wanda_unstructured_50_actual_sparsity	0.5		28	explicit
wanda_unstructured_50_wikitext2_ppl	18.4108		29	explicit
wanda_2of4_actual_sparsity	0.5		58	explicit
wanda_2of4_wikitext2_ppl	28.2521		59	explicit
magnitude_unstructured_50_actual_sparsity	0.5001		88	explicit
magnitude_unstructured_50_wikitext2_ppl	1713.59		89	explicit

Phase	Line	Time	CPU time	Memory	GPU
wanda_unstructured_50	1	21:18:14	1.3 s	0.54 GB	
wanda_2of4	31	21:21:24	0.1 s	0.03 GB	
magnitude_unstructured_50	61	21:24:40	0.3 s	0.03 GB	

B Provenance timeline and activity map

Run 1: kv_run.sh

#	Snapshot	Time	Root	Changed
0	run_start	21:18:14	f473fa4cb800bdc4	36
1	phase wanda_unstructured_50	21:18:14	f473fa4cb800bdc4	0
2	phase wanda_2of4	21:21:24	f473fa4cb800bdc4	0
3	phase magnitude_unstructured_50	21:24:40	f473fa4cb800bdc4	0
4	run_end	21:25:53	f473fa4cb800bdc4	0

Event	Path or command	Hash
read	kv_run.sh	
read	main_opt.py	
read	.kveritasignore	
read	dense_ft/sparse_trainer.py	
read	dense_ft/trainer.py	
read	image_classifiers/datasets.py	
read	image_classifiers/download_weights.sh	
read	image_classifiers/engine.py	
read	image_classifiers/layerwrapper.py	
read	image_classifiers/main.py	
read	image_classifiers/models/convnext.py	
read	image_classifiers/models/deit.py	
read	image_classifiers/models/mlp_mixer.py	
read	image_classifiers/models/swin_transformer.py	
read	image_classifiers/models/vision_transformer.py	
read	image_classifiers/optim_factory.py	
read	image_classifiers/prune_utils.py	
read	image_classifiers/utils.py	
read	lib/ablate.py	
read	lib/data.py	

Event	Path or command	Hash
read	lib/eval.py	
read	lib/layerwrapper.py	
read	lib/prune.py	
read	lib/prune_opt.py	
read	lib/sparsegpt.py	
read	llm_weights/models--facebook--opt-1.3b/.no_exist/3f5c25d0bc631cb57ac659...	
read	llm_weights/models--facebook--opt-1.3b/blobs/1d966f7bdd3b64f7632fcc679...	
read	llm_weights/models--facebook--opt-1.3b/blobs/cf739e3ba86db7791ebab2828...	
read	lora_ft/evaluate_ppl.py	
read	lora_ft/finetune_lm.py	
read	lora_ft/script.sh	
read	main.py	
read	scripts/ablate_weight_update.sh	
read	scripts/llama_13b.sh	
read	scripts/llama_30b.sh	
read	scripts/llama_65b.sh	
read	scripts/llama_7b.sh	
read	llm_weights/models--facebook--opt-1.3b/refs/main	
read	llm_weights/models--facebook--opt-1.3b/blobs/cf7d5c970d6ddbd3b03009b3...	
process	python main_opt.py --model facebook/opt-1.3b --prune_method wanda --spar...	
process	grep -E perplexity sparsity	
process	grep -E perplexity sparsity	
process	python main_opt.py --model facebook/opt-1.3b --prune_method wanda --spar...	
process	python main_opt.py --model facebook/opt-1.3b --prune_method magnitude --...	
process	grep -E perplexity sparsity	

C Run history

Invocation 1, OK, 7 minutes 39 seconds, 90 output lines, started 2026-10-10T21:18:14

```
metric_hash 2b174ae9bbbe9f9be3c16eb325adac78a761912b634323b5fd77dbb55b12805bd
run_digest  dad52b3f544f0e6a6e5a5d91b1279926f29e02d511beef171c3d1e04d1dd7bbf
anchored    at run end
```

D Raw seal fields and hashes

Seal

```
data_hash      ebe63d9fbaa8d39c38ecb640cf95a443f663d88873ca18a3c8c1902a8850f49f
signed_message_hash f2e7bedd67c18029b7a2a3dfdb193bc0a102b7c4e82e20283ec7d4168659b73c
nonce         4893b191abb1615e59839284d98dcb79
signed_at      2026-10-10T21:25:54.768574+00:00
sealed_at      2026-10-10T21:25:54.828291809Z
checkout_bundle 7945ac5100d3fc6c4caef643c5992d0b2c233d2c3ce468af4eab55a77aa23858
```

Signature (base64)

```
gUqLjq2RCz/C0LPb/FEhTouJS8Z4a84feju/os87Awxy+odYnw0tn3w5i7hQAM1/wgnF4I/MvCQX1LKKjaKJFSrq
rSwzEBQYUU3uu4a1lettm9t1u6j0VgUIUyC1zYmjS8GfXwTR42uZWESx5jehHFCwdi/ncitk1TqooULocSdPb6DM
zdMZvjDbXvs/WPJn/37Q5teHe7m+NsqgqBSUz00jwbLcngYwopCI60id9edaHzzyjey40/G+dPVAruFb1qdcbaJm
vPy1RnANDLqpFof/k0wl87sA30DDkydGbY1y1mWTpa5Q/kElN47a8fjcnU90ZtaRp5jHM/NFVlQmYGckimMzcXow
QYZ++C5/H4p69I4cicpqCcTzejBRATvIhhybGzoGvta41wa/VtnENEp7B5Lx2vUcaEpmF2nmwIQ/RDDorY7RaNu
Su3C0oqLn5pmhi1xHdEbPTSf2cJjqmaCF3W9NBVgmPVi3brC5ON3ARDcZYboMhKbpUDPBK6774ht7wLF1+uwjUqd
z0p6hGH57SbR36chkLwd8+8/u4QJjaDn3agbUDoiIcGtMfvU5esM/1vZRYVGAQRiU2kfttYh6AlfLFMIQGOX1
mgc2zn0of/ESiQ8Q2S0QBJacPMYIUoxVBaVkJ9D23EwyEgVjK09Rv60zTE08PtM1HLQk=
```

Public key

```

-----BEGIN PUBLIC KEY-----
MIICIjANBgkqhkiG9w0BAQEFAAOCAg8AMIICCgKCAgEA1QL3YyMgeShx8IhTC7jb
sM0w2BnRXgsBn3+SMXKjtwHATqdekmlPlcJayJxD5fcProPPCqp/LouFz5CUZzRi
6+8FTv70dHuIz5A4LAt4vcgwP+iWscPc3HzpmjpsKbTmOemqgp6RB6GnnPpxYa5X
7qU95EfEisX/GfoS9ToXtqPBwCcVWSPBX8efec4TC58m96Fsp4mC8KIcEadbIbHN
av0JjdTJ//CM0WZSIbdzE6qvEbNFcQDB5tNU7oHfYvBeNLrvPU9TAqdbtozdhQ+D
AhfTRuJNgWEkjwD5lb0Vhi4qlkweSOEMTKT3ye9Il5xEaJn4bku4eKqes7VSzt3o
XbUcmr2H5mKcKSvt6bXmX6ajAmgi900Cm9QJlaQkJM6z2iITnyvDMgueJtFxQpC9
HNBPgPZ242NH8JgE6CNF7ToL9syasS67u7UMgIcNgeNHNcy9bLgpU5annzP9gN2l
6HEMldkXNdKQRb1rDwyEJf3N/50YHnXXPmuf5sb8R/pxWNqtF04R5UGVV92qd2Mi
1GN7lE3mbQRbPsLL/JApDXMNzNikaFfBsQK7iKxr7vIaTeZckFZWfThcYNT7Hasg
+eE4bf/olCHBCf1VIDCkDxohehdZ0WRRcgM9iK3I/0zZdaBsgdc8WuJRmb8LPP9v
8Jap/1PWjNcNku5cdw3gHLcCAwEAAQ==
-----END PUBLIC KEY-----

```

Run 1 outputs

```

stdout  9d90b20535ddf68304a7841712fc84ecbc186ed79989044e6fed05a48386b629
stderr  e3b0c44298fc1c149afb4c8996fb92427ae41e4649b934ca495991b7852b855
metrics 2b174ae9bbbe9f9be3c16eb325adac78a761912b634323b5fd77dbb55b12805bd
digest  dad52b3f544f0e6a6e5a5d91b1279926f29e02d511beef171c3d1e04d1dd7bbf
kv_run.sh (unchanged)
pre  20ff8446e3f99d8fc0f7ab59afab7e980fb30952704ff99da3219355986c6587
post 20ff8446e3f99d8fc0f7ab59afab7e980fb30952704ff99da3219355986c6587

```

E BibTeX for [1]

```

@misc{keita2026computerscienceconferencesrequire,
  title={Computer Science Conferences Should Require Nonrepudiable Experimental Results},
  author={Mamadou K. Keita and Christopher Homan},
  year={2026},
  eprint={2605.08586},
  archivePrefix={arXiv},
  primaryClass={cs.CR},
  url={https://arxiv.org/abs/2605.08586},
}

```