

Sealed Experiment Record

Sealed 2026-10-10 · Signed by the K-Veritas server
Session 18085593 · Data hash ac03...9464

Abstract

This record seals 1 run (kv_run.sh) executed on Intel(R) Xeon(R) W-2145 CPU @ 3.70GHz between 2026-10-10 21:35 and 21:36 UTC. Reported results: plain_z_score_seed_123 0.205, watermarked_z_score_seed_123 11.3, plain_z_score_seed_1 -2.25, watermarked_z_score_seed_1 8.55. 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	18085593-06c6-4b1a-90df-15aa74ddd08e
Initialized	2026-10-10T21:35:46Z
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	73e54c3bf158d109c0d304c6f77193225c33b1118713498072b2b87ce045e9ce
Disclosure	open
Source code, run 1	285a3198ce31d52b7f6dae37eea5fcca3587c0606e811a32bda2a679cf498ae5

2 Runs

#	Command	Duration	Exit	Anchored
1	bash kv_run.sh	1 minutes 4 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
plain_z_score	0.707	4 (5 readings)	explicit
plain_green_fraction_pct	28.1	4 (5 readings)	explicit
watermarked_z_score	10.8	4 (5 readings)	explicit

Metric	Final value	Step	Source
watermarked_green_fraction_pct	58.3	4 (5 readings)	explicit

Inline claim	Value	Phase	Output line
plain_z_score_seed_123	0.205		42
watermarked_z_score_seed_123	11.3		45
plain_z_score_seed_1	-2.25		85
watermarked_z_score_seed_1	8.55		88
plain_z_score_seed_2	0.532		132
watermarked_z_score_seed_2	9.37		135
plain_z_score_seed_3	-0.123		177
watermarked_z_score_seed_3	9.04		180
plain_z_score_seed_4	0.707		222
watermarked_z_score_seed_4	10.8		225

Seed committed: seed:123, output line 2, 2026-10-10T21:35:47Z.

Seed committed: seed:1, output line 47, 2026-10-10T21:36:00Z.

Seed committed: seed:2, output line 90, 2026-10-10T21:36:13Z.

Seed committed: seed:3, output line 137, 2026-10-10T21:36:26Z.

Seed committed: seed:4, output line 182, 2026-10-10T21:36:38Z.

4 Execution evidence

Coherence

Coherent (0.40): the telemetry channels move together, as one process.

Telemetry

Run	Samples	CPU time	Peak memory	Peak GPU
1	632	15.0 s	3.51 GB	89%

5 Provenance

Run 1: kv_run.sh

Disclosure open. 112 tracked files, 7 snapshots. Every snapshot is bound into the signature.

#	Snapshot	Time	Root	Changed
0	run_start	21:35:46	300694f0d46be369	112
6	run_end	21:36:50	300694f0d46be369	0

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

Withheld by .kveritasignore	Size	Hash
experiments/io_utils.py	<1MB	5656b892c20c50a5677e108b
experiments/launch.py	<1MB	4e69eea3b654142356a4670b
experiments/process_rows.py	<1MB	9e019141fcf0ce2d2ad2e07a
experiments/run_watermarking.py	<1MB	15da0eb7907043bfd0d91367
experiments/submitit_utils.py	<1MB	1b1d2b3523b05e3ddefb88bb
experiments/watermark.py	<1MB	fdd7a87a0fd0fd63f950aa60
experiments/watermarking_analysis.ipynb	<1MB	392e351146061cabb791b41b
experiments/watermarking_example_finding.ipynb	<1MB	659760f3b6d83d5190eaf80f
hf_hub_space_demo/app.py	<1MB	64d3ee3bd065923dce56b8e3
hf_hub_space_demo/demo_watermark.py	<1MB	aea3eb98d192473c98ec8cc6

Withheld by .kveritasignore	Size	Hash
hf_hub_space_demo/homoglyph_data/__init__.py	<1MB	ef56c5210db27917be1b27d6
hf_hub_space_demo/homoglyph_data/categories.json	<1MB	33e89c581cde71cebcee7b3e
hf_hub_space_demo/homoglyph_data/confusables_s...	<1MB	9b106c772d6aead58d421fa8
hf_hub_space_demo/homoglyph_data/languages.json	<1MB	dcf690bdc6d152739cd1e395
hf_hub_space_demo/homoglyphs.py	<1MB	93a605c7b1c6c5cecea9b421
hf_hub_space_demo/normalizers.py	<1MB	20e7ee2ce01c950ee472ca3d
hf_hub_space_demo/watermark_processor.py	<1MB	1f6e8d41fd89f090c1e97144
watermark_reliability_release/alternative_prf_schem...	<1MB	2cfec4ff1fbef60c71adf39a
watermark_reliability_release/attack_pipeline.py	<1MB	67f238ea7aca144049af61cf
watermark_reliability_release/broadcast_token_prefi...	<1MB	375e4fc03f9be5c80c7d1ad9
watermark_reliability_release/detectgpt/debug.sh	<1MB	b5966142f4a17e918dec4b5
watermark_reliability_release/detectgpt/detectgpt_m...	<1MB	0c20ac21aeb63aeaffc690d1
watermark_reliability_release/detectgpt/make_plot.py	<1MB	b6e79b1cf4d89a4a154dc601
watermark_reliability_release/detectgpt/plot.sh	<1KB	1a8ee3eff46b6dac19434c52
watermark_reliability_release/detectgpt/run_detectg...	<1MB	a17f803c6f1d01212b745c2f
watermark_reliability_release/evaluation_pipeline.py	<1MB	0a3f27fa031fb1398d10951b
watermark_reliability_release/figure_notebooks/base...	<1GB	d306938178f2fe79dcbae6de
watermark_reliability_release/figure_notebooks/base...	<1GB	6787db8ddea287500c567197
watermark_reliability_release/figure_notebooks/core...	<1MB	155a37aead1f48816c00ed56
watermark_reliability_release/figure_notebooks/data...	<1MB	cb458cd52e2301881fa8b11e
watermark_reliability_release/figure_notebooks/dete...	<1MB	36b2df4578308cebed14da45
watermark_reliability_release/figure_notebooks/hum...	<1MB	566d8e78e07c80a9c5900ea1
watermark_reliability_release/figure_notebooks/pro...	<1MB	72a5a286667deff38d6bfcfc
watermark_reliability_release/figure_notebooks/sche...	<1MB	7c76155d51024c5fbbd5559c
watermark_reliability_release/generation_pipeline.py	<1MB	ef7bf6c27cfc985834067c4f
watermark_reliability_release/homoglyph_data/__ini...	<1MB	465d83b15dfff15ddb81eef7
watermark_reliability_release/homoglyph_data/categ...	<1MB	24a1f93696e4eb4d55b21e15
watermark_reliability_release/homoglyph_data/conf...	<1MB	aa2fe06cfcf0f7f3b93ab495
watermark_reliability_release/homoglyph_data/lang...	<1MB	95908ddf124eafa715aa7fcc
watermark_reliability_release/homoglyphs.py	<1MB	c122b52025c1b080b40d273b
watermark_reliability_release/local_tokenizers/__ini...	<1KB	26da66e6ae96487a21a856c
watermark_reliability_release/local_tokenizers/token...	<1MB	c88257b814d70b6ed62913bd
watermark_reliability_release/metrics/__init__.py	<1KB	522e35e63460ecba9f293faa
watermark_reliability_release/metrics/coherence.py	<1KB	59f0d6b485dfc040aad3e642
watermark_reliability_release/metrics/detect_retriev...	<1MB	715a77a274f6120c017545d6
watermark_reliability_release/metrics/detect_retriev...	<1MB	ae6174a958879d7cf759414e
watermark_reliability_release/metrics/detect_retriev...	<1MB	b14c1dbda571f82172365296
watermark_reliability_release/metrics/detect_retriev...	<1MB	fd638199e734bc4f13d5a469
watermark_reliability_release/metrics/detect_retriev...	<1MB	b9f2d45af6cda836bcc10dae
watermark_reliability_release/metrics/detect_retriev...	<1MB	042f548fae5f54ba7fbda632
watermark_reliability_release/metrics/detect_retriev...	<1MB	50d4e186e0081cf21007919b
watermark_reliability_release/metrics/detect_retriev...	<1KB	b653fdcb68b4ff93fdd0c84a
watermark_reliability_release/metrics/detect_retriev...	<1MB	a7e2d286eca0de93c22c83fa
watermark_reliability_release/metrics/detect_retriev...	<1MB	f909377b6a9acb411d381369
watermark_reliability_release/metrics/detect_retriev...	<1KB	e7053b0e18a6e97a4babd8a8
watermark_reliability_release/metrics/detect_retriev...	<1KB	d6f8a2ab5681d0e703c79d2b
watermark_reliability_release/metrics/detect_retriev...	<1MB	f967b7afeaf630dd514f852b
watermark_reliability_release/metrics/detect_retriev...	<1KB	3c804d05b2838719ff590b9d
watermark_reliability_release/metrics/detect_retriev...	<1MB	db7cb0a8219ffa9242771e55
watermark_reliability_release/metrics/detect_retriev...	<1KB	46baac1bca8a71c74b4f1a0c

Withheld by .kveritasignore	Size	Hash
watermark_reliability_release/metrics/detect_retriev...	<1MB	b9f075189015525dc9fc3389
watermark_reliability_release/metrics/detect_retriev...	<1MB	c235ad7ca39fa48c2e857985
watermark_reliability_release/metrics/detect_retriev...	<1MB	7e3862508111872bfb0eb9b
watermark_reliability_release/metrics/detect_retriev...	<1MB	c0736d524bb3e2bd2a149b1a
watermark_reliability_release/metrics/detect_retriev...	<1MB	b380bd0ac3319d064a540fb0
watermark_reliability_release/metrics/mauve.py	<1MB	586f4b3075d87437762f8b0a
watermark_reliability_release/metrics/p_sp.py	<1MB	b6599eecacd0a4d31580b9b6
watermark_reliability_release/metrics/p_sp_utils/dat...	<1MB	7f16dc08a612d3257b733168
watermark_reliability_release/metrics/p_sp_utils/eva...	<1MB	1d3fdf8bdb1c52c48d481489
watermark_reliability_release/metrics/p_sp_utils/mo...	<1MB	77aa9b2565092dd8485f64e1
watermark_reliability_release/metrics/p_sp_utils/pai...	<1MB	b31fe27cad6210d2eb20b4a6
watermark_reliability_release/metrics/repetition_div...	<1MB	b405d50e0a21409d646b237c
watermark_reliability_release/misc_ipynbs_and_scri...	<1MB	6e9e734338cd18f7f5c4f1f3
watermark_reliability_release/misc_ipynbs_and_scri...	<1MB	5a201158acc514ca031accec
watermark_reliability_release/misc_ipynbs_and_scri...	<1MB	553eca8ef302f24a2003b2e5
watermark_reliability_release/misc_ipynbs_and_scri...	<1MB	1069959ee9c9a5b4f39fdda5
watermark_reliability_release/misc_ipynbs_and_scri...	<1MB	fecf505e84fbe423a6dae558
watermark_reliability_release/misc_ipynbs_and_scri...	<1MB	6fe0253557c16b1700934f0b
watermark_reliability_release/normalizers.py	<1MB	b0ab4f1ea2a459f77b842040
watermark_reliability_release/run_pipeline.sh	<1MB	b25f6a6dc48d806488a6b13c
watermark_reliability_release/utils/__init__.py	<1KB	8d4c00fcacc98e670644e532
watermark_reliability_release/utils/apply_vicuna_del...	<1MB	e42524ff91117ddf5abf9780
watermark_reliability_release/utils/attack.py	<1MB	1105d170b4b9a410832e52bd
watermark_reliability_release/utils/copy_paste_attac...	<1MB	57ff4a58516ba66f4850fe74
watermark_reliability_release/utils/data/__init__.py	<1KB	d7a1d91783f97650b5ef4a4b
watermark_reliability_release/utils/data/cml_pile.py	<1MB	c6779c690c32b8942015465b
watermark_reliability_release/utils/data/essays.py	<1KB	6047fc1e734e7eaae5d38529
watermark_reliability_release/utils/data/lfqa.py	<1KB	e38c67a460b5f77c1f9f24eb
watermark_reliability_release/utils/data/wikitext.py	<1KB	d874c4855af44d772bf6554f
watermark_reliability_release/utils/dipper_attack_pi...	<1MB	9b4b1d44696f79b3d98e1cce
watermark_reliability_release/utils/evaluation.py	<1MB	da58beca4ce1175ba797f27e
watermark_reliability_release/utils/generation.py	<1MB	61fdbf3429cabb65ba675efd
watermark_reliability_release/utils/hypothesis_testin...	<1MB	4419fdddea1f26bbef405c92
watermark_reliability_release/utils/io.py	<1MB	c8eed40f3ea52950a13a1e00
watermark_reliability_release/utils/notebooks.py	<1MB	c6c1846bd5b48433ab28b52d
watermark_reliability_release/utils/prompts.json	<1MB	bc7b5bd9cb1e9f859bd8db76
watermark_reliability_release/utils/submitit.py	<1MB	32d8c3d0a6b8ecae5ad3e0a1
watermark_reliability_release/watermark_processor.py	<1MB	e07eed6c671959c1972c0a75

Activity: 113 files read, 0 files written, 9 subprocesses. Full list in Appendix B.

6 Verification

Field	Value
Signer	Signed by the K-Veritas server
Signed at	2026-10-10T21:36:51.216698+00:00
Algorithm	RSA-PSS-SHA256, 4096-bit key
Key fingerprint	eeac81653cf44ac029c4069cf2a06d9f
Data hash	ac03b8e5033482f06efa21de3c8e0ceb7f32d4968df7a3a05837d1e49e879464
Code bundle hash	0f22f086a877ed4650cba6fdadc3830c36a48fd30fb7e09394c9f140e497d765

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
plain_z_score	0.205	123	40	explicit
plain_green_fraction_pct	25.6	123	41	explicit
watermarked_z_score	11.3	123	43	explicit
watermarked_green_fraction_pct	59.8	123	44	explicit
plain_z_score	-2.25	1	83	explicit
plain_green_fraction_pct	18.1	1	84	explicit
watermarked_z_score	8.55	1	86	explicit
watermarked_green_fraction_pct	51.3	1	87	explicit
plain_z_score	0.532	2	130	explicit
plain_green_fraction_pct	26.6	2	131	explicit
watermarked_z_score	9.37	2	133	explicit
watermarked_green_fraction_pct	53.8	2	134	explicit
plain_z_score	-0.123	3	175	explicit
plain_green_fraction_pct	24.6	3	176	explicit
watermarked_z_score	9.04	3	178	explicit
watermarked_green_fraction_pct	52.8	3	179	explicit
plain_z_score	0.707	4	220	explicit
plain_green_fraction_pct	28.1	4	221	explicit
watermarked_z_score	10.8	4	223	explicit
watermarked_green_fraction_pct	58.3	4	224	explicit

Phase	Line	Time	CPU time	Memory	GPU
seed_123	1	21:35:47	1.4 s	0.08 GB	
seed_1	46	21:36:00	0.3 s	0.03 GB	
seed_2	89	21:36:13	0.0 s	0.02 GB	
seed_3	136	21:36:25	0.0 s	0.02 GB	
seed_4	181	21:36:38	0.0 s	0.02 GB	

B Provenance timeline and activity map

Run 1: kv_run.sh

#	Snapshot	Time	Root	Changed
0	run_start	21:35:46	300694f0d46be369	112
1	phase seed_123	21:35:47	300694f0d46be369	0
2	phase seed_1	21:36:00	300694f0d46be369	0
3	phase seed_2	21:36:13	300694f0d46be369	0
4	phase seed_3	21:36:26	300694f0d46be369	0
5	phase seed_4	21:36:38	300694f0d46be369	0
6	run_end	21:36:50	300694f0d46be369	0

Event	Path or command	Hash
read	kv_run.sh	
read	demo_watermark.py	

Event	Path or command	Hash
read	.kveritasignore	
read	alternative_prf_schemes.py	
read	app.py	
read	experiments/io_utils.py	
read	experiments/launch.py	
read	experiments/process_rows.py	
read	experiments/run_watermarking.py	
read	experiments/submitit_utils.py	
read	experiments/watermark.py	
read	experiments/watermarking_analysis.ipynb	
read	experiments/watermarking_example_finding.ipynb	
read	extended_watermark_processor.py	
read	hf_hub_space_demo/app.py	
read	hf_hub_space_demo/demo_watermark.py	
read	hf_hub_space_demo/homoglyph_data/__init__.py	
read	hf_hub_space_demo/homoglyph_data/categories.json	
read	hf_hub_space_demo/homoglyph_data/confusables_sept2022.json	
read	hf_hub_space_demo/homoglyph_data/languages.json	
read	hf_hub_space_demo/homoglyphs.py	
read	hf_hub_space_demo/normalizers.py	
read	hf_hub_space_demo/watermark_processor.py	
read	homoglyph_data/__init__.py	
read	homoglyph_data/categories.json	
read	homoglyph_data/confusables_sept2022.json	
read	homoglyph_data/languages.json	
read	normalizers.py	
read	pyproject.toml	
read	setup.cfg	
read	watermark_processor.py	
read	watermark_reliability_release/alternative_prf_schemes.py	
read	watermark_reliability_release/attack_pipeline.py	
read	watermark_reliability_release/broadcast_token_prefixes.py	
read	watermark_reliability_release/detectgpt/debug.sh	
read	watermark_reliability_release/detectgpt/detectgpt_main.py	
read	watermark_reliability_release/detectgpt/make_plot.py	
read	watermark_reliability_release/detectgpt/plot.sh	
read	watermark_reliability_release/detectgpt/run_detectgpt.sh	
read	watermark_reliability_release/evaluation_pipeline.py	
read	watermark_reliability_release/figure_notebooks/baseline_comparison.ipynb	
read	watermark_reliability_release/figure_notebooks/baseline_comparison_transpo...	
read	watermark_reliability_release/figure_notebooks/core_robustness.ipynb	
read	watermark_reliability_release/figure_notebooks/data_model.ipynb	
read	watermark_reliability_release/figure_notebooks/detector_ablation.ipynb	
read	watermark_reliability_release/figure_notebooks/human_study.ipynb	
read	watermark_reliability_release/figure_notebooks/prompt_ablation.ipynb	
read	watermark_reliability_release/figure_notebooks/scheme_ablation.ipynb	
read	watermark_reliability_release/generation_pipeline.py	
read	watermark_reliability_release/homoglyph_data/__init__.py	
read	watermark_reliability_release/homoglyph_data/categories.json	
read	watermark_reliability_release/homoglyph_data/confusables_sept2022.json	

Event	Path or command	Hash
read	watermark_reliability_release/homoglyph_data/languages.json	
read	watermark_reliability_release/homoglyphs.py	
read	watermark_reliability_release/local_tokenizers/__init__.py	
read	watermark_reliability_release/local_tokenizers/tokenization_llama.py	
read	watermark_reliability_release/metrics/__init__.py	
read	watermark_reliability_release/metrics/coherence.py	
read	watermark_reliability_release/metrics/detect_retrieval.py	
read	watermark_reliability_release/metrics/detect_retrieval_utils/detection_utils.py	
read	watermark_reliability_release/metrics/detect_retrieval_utils/embed_sentences...	
read	watermark_reliability_release/metrics/detect_retrieval_utils/evaluate_sts.py	
read	watermark_reliability_release/metrics/detect_retrieval_utils/main.py	
read	watermark_reliability_release/metrics/detect_retrieval_utils/models.py	
read	watermark_reliability_release/metrics/detect_retrieval_utils/pairing.py	
read	watermark_reliability_release/metrics/detect_retrieval_utils/preprocess/biling...	
read	watermark_reliability_release/metrics/detect_retrieval_utils/preprocess/biling...	
read	watermark_reliability_release/metrics/detect_retrieval_utils/preprocess/biling...	
read	watermark_reliability_release/metrics/detect_retrieval_utils/preprocess/biling...	
read	watermark_reliability_release/metrics/detect_retrieval_utils/preprocess/biling...	
read	watermark_reliability_release/metrics/detect_retrieval_utils/preprocess/biling...	
read	watermark_reliability_release/metrics/detect_retrieval_utils/preprocess/paran...	
read	watermark_reliability_release/metrics/detect_retrieval_utils/preprocess/paran...	
read	watermark_reliability_release/metrics/detect_retrieval_utils/preprocess/paran...	
read	watermark_reliability_release/metrics/detect_retrieval_utils/preprocess/paran...	
read	watermark_reliability_release/metrics/detect_retrieval_utils/preprocess/paran...	
read	watermark_reliability_release/metrics/detect_retrieval_utils/preprocess/text2...	
read	watermark_reliability_release/metrics/detect_retrieval_utils/score_sentence_p...	
read	watermark_reliability_release/metrics/detect_retrieval_utils/utls.py	
read	watermark_reliability_release/metrics/mauve.py	
read	watermark_reliability_release/metrics/p_sp.py	
read	watermark_reliability_release/metrics/p_sp_utils/data_utils.py	
read	watermark_reliability_release/metrics/p_sp_utils/evaluate_sts.py	
read	watermark_reliability_release/metrics/p_sp_utils/models.py	
read	watermark_reliability_release/metrics/p_sp_utils/pairing.py	
read	watermark_reliability_release/metrics/repetition_diversity.py	
read	watermark_reliability_release/misc_ipynbs_and_scripts/annotation_prep.ipynb	
read	watermark_reliability_release/misc_ipynbs_and_scripts/detectgpt_exploration...	
read	watermark_reliability_release/misc_ipynbs_and_scripts/join_jsonl_prefix_file...	
read	watermark_reliability_release/misc_ipynbs_and_scripts/mauve_coherence_m...	
read	watermark_reliability_release/misc_ipynbs_and_scripts/repetition_metric_ex...	
read	watermark_reliability_release/misc_ipynbs_and_scripts/run_length_explorati...	
read	watermark_reliability_release/normalizers.py	
read	watermark_reliability_release/run_pipeline.sh	
read	watermark_reliability_release/utls/__init__.py	
read	watermark_reliability_release/utls/apply_vicuna_delta.py	
read	watermark_reliability_release/utls/attack.py	
read	watermark_reliability_release/utls/copy_paste_attack.py	
read	watermark_reliability_release/utls/data/__init__.py	
read	watermark_reliability_release/utls/data/cml_pile.py	
read	watermark_reliability_release/utls/data/essays.py	
read	watermark_reliability_release/utls/data/lfqa.py	

Event	Path or command	Hash
read	watermark_reliability_release/utils/data/wikitext.py	
read	watermark_reliability_release/utils/dipper_attack_pipeline.py	
read	watermark_reliability_release/utils/evaluation.py	
read	watermark_reliability_release/utils/generation.py	
read	watermark_reliability_release/utils/hypothesis_testing.py	
read	watermark_reliability_release/utils/io.py	
read	watermark_reliability_release/utils/notebooks.py	
read	watermark_reliability_release/utils/prompts.json	
read	watermark_reliability_release/utils/submitit.py	
read	watermark_reliability_release/watermark_processor.py	
read	homoglyphs.py	
process	python demo_watermark.py --model_name_or_path facebook/opt-1.3b --run_...	
process	python - /var/tmp/kv-repro/039-jwkirchenbauer-lm-watermarking/data/seed_1...	
process	python demo_watermark.py --model_name_or_path facebook/opt-1.3b --run_...	
process	python - /var/tmp/kv-repro/039-jwkirchenbauer-lm-watermarking/data/seed_1...	
process	python demo_watermark.py --model_name_or_path facebook/opt-1.3b --run_...	
process	python - /var/tmp/kv-repro/039-jwkirchenbauer-lm-watermarking/data/seed_2...	
process	python demo_watermark.py --model_name_or_path facebook/opt-1.3b --run_...	
process	python demo_watermark.py --model_name_or_path facebook/opt-1.3b --run_...	
process	python - /var/tmp/kv-repro/039-jwkirchenbauer-lm-watermarking/data/seed_4...	

C Run history

Invocation 1, OK, 1 minutes 4 seconds, 225 output lines, started 2026-10-10T21:35:46

metric_hash 8ab809499a77b70d3a400583b9b4807e7f476bf1076e71a4eefab18824fc90ac
run_digest 0c27f203cc8c4ccf15fc2ec764389fb6d7470fcc4f6aeec2d82640e8f6258ac2
anchored at run end

D Raw seal fields and hashes

Seal

data_hash ac03b8e5033482f06efa21de3c8e0ceb7f32d4968df7a3a05837d1e49e879464
signed_message_hash 7d3a447e253a24bd305fa8ccada3d2ee3d31ae1207f80020abedf7b1d57f4c38
nonce 071cecdb121cb2ae6a2ed512b4e4f2f1
signed_at 2026-10-10T21:36:51.216698+00:00
sealed_at 2026-10-10T21:36:51.276383659Z
checkout_bundle 0f22f086a877ed4650cba6fdadc3830c36a48fd30fb7e09394c9f140e497d765

Signature (base64)

0bGiEVnquEXQKd6W2iqrRK10UevTK/S77pNYDtXoKjY7pLw/L3ZHQdFYgoDEvSbE/fxVvk4MrWn7SS3yi5HiIDNQ1
5WHb6UC6+nVRi/RjDwyky87X/LpHBmhyKUAd7YcpQMqX/xC6h2D303EWK0IUXACs3j4Ga5y0+wJJgCCKAwIhwddB
XN/80NBwByIiJYH9w320S00QJ2ju3ld/E4ajQAmgHZwStd0myVZsu041M2uRxJo6+Lkm28KpwI358wXuW75dC2T0
6Dkxkt59H8C25YlBAJn1KUIfrfM0e0nQgoCHHVgAo+6xo3sG2Y9BCFH2NwN3Iaog+Nmwz2XQsd19QGFS4M5jr7wH
mLe87m3B+7Lg4aF5iVU75CZ3mgXoaHV12TjUrin9zboAvmQewJqusviMxng8pD9UTI+TMzG3dmrkmnLGmU0mIXl/
Fbx8sbqq0TPQESChn/TXh0m9Bj8wL7zN2jp3Ae7JVhUhgNbe1gsPHh7vePLAKoIqHLdLdpexM52ar8E0srFAe0x
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K/qxEkw530Jbx3tBxMNd0x4sb62zd0EpSsaZoAIAeb9blJ4uLAZAw2goGKYPrR/Ntft0=

Public key

-----BEGIN PUBLIC KEY-----
MIICijANBgkqhkiG9w0BAQEFAAOCAg8AMIICCgKCAgEA1QL3YyMgeShx8IhTC7jb
SM0w2BnRXgsBn3+SMXKjtWHA7qdekmlPlcjayJxD5fcPrOPPCqp/LouFz5CUZzRi
6+8FTv70dHuIz5A4LAT4vcgwP+iWscPc3HzpmjpsKbTm0emqgp6RB6GNNPpxYa5X
7qU95EfEisX/Gf0S9T0xtqPBwCcVWSPBX8efeC4TC58m96Fsp4mC8KIcEadbIbHN

```
av0JjdTJ//CM0WZSIbdzE6qvEbNFCqDB5tNU7oHfYvBeNLrvPU9TAqdbtozdhQ+D
AhfTRuJNgWEkjWD5lb0Vhi4qlkweSOEMTKT3ye9IL5xEaJn4bku4eKqeS7VSZt3o
XbUcmr2H5mKcKSvt6bXmX6ajAmgi900Cm9QJlaQkJM6z2iITnyvDMgueJtFxQpC9
HNBPgPZ242NH8JgE6CNF7ToL9syasS67u7UMgIcNgeNHNcy9blGpU5annzP9gN2l
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1GN7lE3mbQRbPsLL/JApDXMNzNikaFfBsQK7iKxr7vIaTeZckFZWfThcYNT7Hasg
+eE4bf/oLCHBCf1VIDCKDxohehdZ0WRRcgM9iK3I/0zZdaBsgdc8WuJRmb8LPP9v
8Jap/1PWjNcNku5cdw3gHLcCAwEAAQ==
-----END PUBLIC KEY-----
```

Run 1 outputs

```
stdout 3f30c938d2f4d7fa50d7640e2a99183b747e03f306fec5b4f8dbf2430afdca53
stderr e3b0c44298fc1c149afb4c8996fb92427ae41e4649b934ca495991b7852b855
metrics 8ab809499a77b70d3a400583b9b4807e7f476bf1076e71a4eefab18824fc90ac
digest 0c27f203cc8c4ccf15fc2ec764389fb6d7470fcc4f6aeec2d82640e8f6258ac2
kv_run.sh (unchanged)
pre 66a5362b103774d1e58fdf44cd7af678a32af6e4d4d5a5d15327ec4ee902962f
post 66a5362b103774d1e58fdf44cd7af678a32af6e4d4d5a5d15327ec4ee902962f
```

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},
}
```