

CHANGHAO (JASON) WANG

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Requirements-driven systems engineer building distributed storage and AI infrastructure from real user workflows, authority boundaries, and failure modes. Alongside a full-time role, independently leads NoKV's engineering, partner qualification, and AI-for-science pilots; understands vLLM/SGLang scheduling, KV-cache lifecycles, and latency/throughput/GPU-memory trade-offs.

OPEN-SOURCE COMMUNITY EXPERIENCES

Co-founder & Distributed Systems Engineer | **NoKV** (483 stars)

Mar 2026 – Present

Independent, part-time engineering and ecosystem work delivered alongside primary employment

- NoKV is listed in the **CNCF** and **Linux Foundation AI & Data Landscapes**, and its early Go version is profiled by **CMU DBDB.io**.
- Originated and qualified five public building-partner relationships, including **LoopX**, **OpenViking** (36K stars), **Hermes Agent** (243K stars), and **LingTai-AI**; work with **ByteDance's** OpenViking team in an 11-person Lark group.
- Opened AI-for-science pilots: an incremental frozen-oracle log beside atomate2/jobflow for immutable DFT provenance, historical reads, and deterministic replay.
- Evolved NoKV from a TiKV-inspired Go distributed filesystem with TSO, Region routing, Raft, MVCC, snapshots, and recovery into a **Rust durable layer for agent sandboxes**. Implemented durable checkpoints, crash-atomic S3 publication, immutable revisions, replay/restore, typed events, and reference-fenced garbage collection behind a native CLI and Python/Rust SDKs.

Collaborator | **LoopX** (5.7K stars)

Aug 2026 – Present

- For LoopX's long-horizon agent control plane, translated users' need for one durable authority across agents and hosts into a provider-neutral shared-goal contract with fenced claims, aggregate state, idempotent writeback, and restart-safe recovery—preventing split-brain while keeping runtimes and storage replaceable.

Maintainer | **Holt**

May 2026 – Present

- Co-created an embedded Rust metadata engine around a **persistent Adaptive Radix Tree** with 512 KB frames, cross-frame routing, epoch-CoW snapshots, atomic batches, WAL/checkpoint recovery, and Linux O_DIRECT/io_uring; page-granular reads average **18 KB per lookup** (~27× less I/O), while public GCP benchmarks reach **2.25–2.46 μs** for representative in-memory/no-WAL metadata mixes.

Contributor | **MLflow** (2.7K stars)

May 2026 – Present

- Translated workspace-deletion requirements into transactional lifecycle semantics across MLflow's SQLAlchemy resource graph;

Invited Speaker | **Linux Foundation ONE Summit Tokyo 2026**

Aug 2026

- Invited by the Linux Foundation to speak on the needs of state layer outside agent sandboxes.

PROFESSIONAL EXPERIENCE

Tutor & Teaching Assistant | **The University of Sydney**

Jun 2025 – Present

- Teach OOP, software construction/design, testing, and databases across five undergraduate/postgraduate units; deliver **14 teaching hours per week** and coach debugging and architecture trade-offs.

Contract Full-Stack Engineer | **PicSEO AI**

Mar 2025 – Jun 2025

- Build and shipped an image management/sharing system for photographers by myself. Reached **100+ DAU** and **30+ paying users** in the first month. The system supports isolated storage, encrypted sharing, chunked uploads, AI support metadata control, real-time rendering, and billing;

AI Software Development Engineer (Contract) | **Neuono**

Jan 2025 – Mar 2025

- Designed Neuono's data and retrieval architecture and its core agentic design-to-order pipeline from scratch. **Reached 10K~ downloads in a month and show cased at New York Fashion Week 25SS**. The system combined lidar-based body measurements, user imagery, style preferences, and human prompts, with hybrid structured and vector retrieval over a nightly refreshed catalogue of manufacturable fabrics, silhouettes, trims, colors, garment types, and multi-piece configurations. This grounded personalized generation in production-feasible options and translated approved designs into order-ready, made-to-measure specifications, while the operational database remained authoritative for component availability and order validation.

SELECTED PERSONAL PROJECTS

EchoJournal | **Genesis Accelerator Cohort 36**

Aug 2025 – Sep 2025

- My side project EchoJournal was selected into the **Genesis Accelerator** cohort 36 of the University of Sydney.
- EchoJournal is a voice-native personal memory management system, it converted speech into searchable transcripts and structured daily, weekly, and monthly reflections linked to user- and date-scoped relational history. Built a WebRTC real-time voice agent that mapped natural-language time references to explicit context queries.

Multi-Agent Slide-to-Quiz System | **UNIHACK Team Lead**

Mar 2025

- Led six engineers to ship a LangGraph coordinator-worker-validator pipeline with PDF fan-out and regeneration in 48 hours.

EDUCATION

Master of Computer Science | **The University of Sydney**

Feb 2024 – Feb 2026

MA, International Multimedia Journalism | **Newcastle University, UK**

Jul 2019 – Nov 2020

TECHNICAL SKILLS

Languages: Rust, Go, Python, TypeScript/JavaScript, SQL

Systems: Raft, MVCC, TSO, Region routing, WAL/checkpoints, persistent ART, S3 object storage, Linux I/O, Docker, Kubernetes

AI infrastructure: vLLM/SGLang, continuous batching, PagedAttention/RadixAttention, prefix/KV caching, prefill/decode scheduling; agent orchestration, provenance, RAG, WebRTC