

Necmettin Karakaya

AI Engineer & CTO

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SUMMARY

AI engineer and technical founder operating as a builder-consultant: partnering directly with C-suite stakeholders to take frontier AI from prototype to production-grade reality. 13+ years shipping software; deep expertise architecting autonomous multi-agent workflows - engineering custom fault-tolerant agent runtimes and scalable retrieval pipelines for zero-trust enterprise environments, with TypeScript/Effect.ts as the strict production layer.

EXPERIENCE

QuEra Computing - AI Solutions Architect (consulting) Apr 2025 - Present

- Built QuEra's **self-hosted AI knowledge platform** end-to-end as a solo consultant: an evidence-backed knowledge graph with **multi-agent research workers**, **MCP access (OAuth 2.0, per-document ACLs)**, and ~120 source connectors.
- The platform serves **200+ employees** on document-heavy quantum R&D supporting the multimillion-dollar **DARPA Quantum Benchmarking Initiative** - every answer cites its evidence.
- Engagement grew from a short pilot (inbound via open source) into a **15+ month retainer**.

Context (usecontext.xyz) - Founder & CTO May 2025 - Present

Productizing the platform architecture built at QuEra for highly regulated enterprises - on-premise, **zero-trust, air-gapped**: graph-based enterprise memory (SurrealDB) on a functional production architecture (Effect.ts), fault-tolerant APIs, granular tracing throughout.

CopyCopter Video AI - Fractional CTO Sep 2024 - Mar 2025

Scaled the AI video platform **300 → 80,000 paying users**; rebuilt generation and processing backend for generative load spikes.

Figment - Senior Full Stack Engineer → Lead Software Engineer Dec 2021 - Jun 2023

Led a team of senior ex-FAANG engineers and designers building the **Figment Staking App** at Canada's largest crypto company; owned its core systems, specs, and roadmap.

Xanthous Tech - Senior Full Stack Developer Feb 2018 - Dec 2021

Cloud and distributed systems for startups and enterprise - incl. **3M, Koch Industries**, and **Arizona State University** engagements.

Earlier - Kiwi Tech, DJI contractor (drone 3D-mapping AI pipelines for enterprise/government); 2013 - 2018
Delvento Home

OPEN SOURCE, SIDE PROJECTS & COMMUNITY

- Creator of **ax** - the agent experience layer: observability + memory for AI coding agents; local-first, typed (~100★).
- Creator of **craftgen** - open-source no-code AI workflow platform on the actor model (316★). Contributor to **LlamaIndex** and other AI projects.
- Side projects: **Macrowave** (**Apple App of the Week**, 20M+ impressions), **Alifestory**, LockinChinese.
- hacka.network** - founding member of a global indie-builder network - chapters in 16 cities (incl. Singapore), 400+ members meeting weekly; host at Hackagu, Bali since 2019. Earlier: community founder in Guangzhou (GZ Software Dev Community, Code Up Girl).

SKILLS · EDUCATION · LANGUAGES

Stack: TypeScript/Node, Effect.ts (production state management); Python; multi-agent systems (custom harnesses, delegation patterns, MCP, tool-calling); LLM ops (tokens/sec, cost-per-request, tiered routing, prompt caching); Kubernetes/EKS, ArgoCD; SurrealDB, Postgres, ClickHouse; Anthropic, AWS Bedrock, GCP (Gemini, Vertex AI), vLLM; OAuth 2.0.

Education: Computer Science studies, South China University of Technology; Business Chinese, Shanghai University. · **Languages:** Turkish, English, Chinese (full professional).