

MILOŠ KULPINSKI

FULL-STACK ARCHITECT | TECHNICAL PRODUCT MANAGER | AI WORKFLOW SYSTEMS

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PROFESSIONAL PROFILE

Product-minded full-stack architect and technical founder building B2B SaaS systems for operations-heavy businesses. I specialise in translating high-context domain workflows into deterministic, test-gated software: role-based operational dashboards, structured planning systems, session-capture workflows, delegated user-context authorization, and AI-assisted execution tools. Just over three years of hands-on engineering across TypeScript, Python, C#/.NET and C++, on PostgreSQL, Supabase and Firebase, with Playwright and destructive data-integrity testing throughout. Earlier career in performance coaching, which is the domain my own platform serves.

CORE EXPERTISE

• 0 to 1 SaaS architecture, domain modelling, state machines	• Data-integrity boundaries and fail-closed RBAC
• TypeScript, Next.js, Node.js, Supabase/PostgreSQL/RLS	• Edge Functions, Firebase Auth and Realtime, REST APIs
• Frontend architecture, design systems, accessibility	• PWA architecture and mobile-first interface engineering
• LLM orchestration, native tool-calling, grounded replies	• Deterministic wrappers around probabilistic reasoning
• Read-only forensic audits, syntax gates, rollback planning	• Destructive regression suites and release gating
• Operational dashboards and progressive disclosure	• Multi-tenant, context-safe workflows for expert users

PROFESSIONAL EXPERIENCE

Jan 2017 - Present

Founder & Principal Systems Architect

LuKul Atelier | Novi Sad, Serbia

- Architected and implemented a proprietary B2B SaaS platform for health and performance operations, covering CRM workflows, planning systems, execution tracking, staff coordination and client-facing data capture.
- Designed strict relational data models and access boundaries with Supabase, PostgreSQL and row-level security, including delegated coach and client context resolution and fail-closed authorization patterns.
- Built stateful, mobile-first web interfaces for operational dashboards, structured plan configuration, session logging and recovery workflows, abstracting complex domain rules into deterministic UI state.
- Led Playwright-driven reliability hardening across role-based access, delegated authorization, stale-context prevention, duplicate identity guards, partial-save recovery, destructive workflow safety and cross-user data integrity.
- Shipped a production grounded LLM concierge on the public site: 32 rejection gates on every reply, a provider budget of 0 or 1 model calls per turn bounded by type, and a fallback ladder that guarantees a safe answer on each failure path. 1,078 automated tests, zero skips.
- Qualified releases against a 76-journey bilingual suite replayed on live staging, selecting the production model by measuring four candidates on the identical suite.
- Established an audit-first engineering cadence: read-only forensic investigation, minimal patches, syntax checks, manual mobile smoke testing, regression gates and explicit rollback instructions before release.
- Designed biometric automation architecture for intra-individual scoring, anomaly detection and staff alerting, without coupling the product to a single device vendor or low-code platform.

Nov 2025 - Mar 2026

Technical Product Designer & Engineer

Infinity Fitness Academy | Novi Sad, Serbia

- Audited operational bottlenecks and built a custom single-page application to replace legacy workflows for member check-in and management visibility.
- Implemented a modern JavaScript and CSS front end with Firebase-backed real-time state and authentication.
- Designed a dual-interface CRM with progressive disclosure: simplified flows for front-line use, deeper operational clarity for management.

SELECTED INDEPENDENT SYSTEMS

Mining & energy orchestration	Local-first control system running Bitcoin miners on solar surplus at a physical site: fleet telemetry, meter-level generation and grid-flow measurement, and actions that must be confirmed physically before the next one is issued. Exact rational arithmetic for FPPS and PPS payout accounting; PPS+, PPLNS and SOLO return an explicit unsupported result rather than an approximate value. C# on .NET, 33 accepted architecture decision records and a standing risk register.
Evidence pipeline	11,261 listings from nine sources deduplicated to 7,678 canonical properties (Python, DuckDB, Parquet). Coverage is derived from how a collector terminated and never set by hand, so a run that stopped early cannot be read as evidence that a listing is gone. 536 tests.
Safety-witness firmware	ESP32 unit in C++ and ESP-IDF, incapable of actuation by construction; watchdog gated on dual liveness tokens; verified against 14 golden traces produced by an independent Python model.
Live interfaces	Training PWA on Supabase row-level security with fail-closed auth routing (ironsilk.app). Real-time trading prototype over a simulated feed with live sequence-gap detection (trading-ui-mvp.netlify.app). Astro and GSAP landing site (krug-landing-page.netlify.app).

TECHNICAL STACK

Languages	TypeScript, JavaScript ES6+, Python, C#/.NET, C++, SQL, HTML/CSS.
Frontend	React, Next.js, Astro, PWA architecture, design systems, responsive and mobile-first UI, accessibility.
Backend & Data	PostgreSQL, Supabase, Row Level Security, Edge Functions, Firebase Auth/Realtime, DuckDB/Parquet, REST APIs.
Testing & Reliability	Playwright, pytest, destructive data-integrity suites, mutation testing, syntax and regression gates, read-only audits, fail-closed design.
AI & Automation	OpenAI and Claude workflows, native tool-calling, deterministic wrappers, human review loops, parallel agent worktrees under a written authorization boundary.

DOMAIN BACKGROUND

Sixteen years across fitness clubs, studios and private coaching, including seven in Kuwait and a period running a facility. This is the domain LuKul Atelier serves, and the reason its workflows match how the business actually operates rather than an idealised version of it.

Lead Performance Specialist	Rise Academy, Kuwait City Nov 2023 - Nov 2024
Senior Performance Specialist	Inspire Pure Fitness, Kuwait City Jun 2014 - Jul 2020

EDUCATION

B.A. Physical Education and Sport	Faculty of Sport and Tourism TIMS, Novi Sad 2012
IT Foundations	Mihajlo Pupin Electrotechnical School, Novi Sad 2006