Otar Davitashvili

Founding Engineer · Full-Stack Products, Secure Platforms & Applied AI

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portfolio1-1-mu.vercel.app · github.com/WERSIT35 · linkedin.com/in/otar-davitashvili

Founding-style engineer who takes products from idea to running system and leads the people who build them. As sole engineer, built a slot provider platform (Fastify RGS, signed operator API, wallet integration, 300+ tests), full-stack Angular and Node.js platforms for clients, and an AI image app with server-verified in-app purchases. Trained and led a 5-person STM32 team from zero coding experience.

CORE Product engineering end to end · Node.js · TypeScript · Angular · Flutter · Secure APIs & auth (HMAC, JWT, OAuth, TOTP) · PostgreSQL & MongoDB · Docker, Kubernetes & CI · Applied AI (OpenAI, Claude) · STM32 firmware · Team leadership & mentoring

EXPERIENCE

Founder & Lead Engineer · Lumina Games — Apr 2026 – Present

Part-time venture, not yet incorporated · Pre-launch (demo live, RGS not yet hosted) · Live demo · GitHub

- Designed and built, as sole engineer, a **B2B game platform** for casino operators: Fastify/TypeScript RGS (game server), operator control plane, provider and operator admin consoles, and the canvas client for the first title, **Vault 20K**.
- Wrote one **shared maths engine** that runs unchanged in the browser, the RGS and a seeded, sharded RTP tool; validated three RTP profiles (96.38%, 94.40%, 92.38%) with **30M seeded rounds per mode**, confirmed on a second 200M-round seed (pooled base RTP 96.36% ± 0.07% vs 96.38% declared).
- Secured casino integration with an **HMAC-signed operator API** (raw-byte signatures, nonce replay protection, timestamp-skew checks, rate limiting) and seamless-wallet webhooks with idempotent debits and lost-debit rollback, proven end to end against a demo casino.
- Made every round auditable and traceable: seeded RNG, **hash-chained, Ed25519-signed append-only ledgers** behind Postgres triggers, signed round exports, W3C tracing through to wallet webhooks, Prometheus metrics.
- Ran an internal security review: 8 findings (2 High: a concurrent-round race, reusable idempotency keys), each fixed with a regression test in a **57-test abuse suite**; 300+ tests in CI; 45 design docs.
- Load-tested over real HTTP on one Node process: **~1,150 spins/s, p99 13 ms** at 10 concurrent sessions, **0 errors over 69k spins**, ledger and wallet reconciled to the cent.

AML & Game Control Officer · Betlive — Sep 2024 – Present

Full-time · iGaming operator

- Monitor real-time transactions for money laundering, fraud and suspicious behaviour: **up to 3,300 reviewed items a month**, **top 3 of 11–12 analysts by monthly volume in 5 of 8 months, #1 twice**.
- Work out how players abuse promotions, then find and document **bonus-abuse and fraud cases** using back-office tools, **SQL scripts and Power BI**.
- Test new website features and find **critical bugs**; use browser automation to examine workflows and support operational reviews.

Freelance Full-Stack Engineer — Sep 2022 – Present

Freelance, alongside employment

- **Elite Weddings** (elitewe.com.ge): bilingual EN/KA wedding-agency platform on Angular and a framework-free Node.js backend (plain node:http) with hand-written JWT, scrypt and RFC 6238 TOTP; layered inquiry anti-abuse (honeypot, rate limits, daily caps, CAPTCHA); Docker on k3s with network policies and cert-manager TLS.
- **HeatFlow / Tenebi** (tns-khaki.vercel.app): bilingual KA/EN heating-element catalogue, **309 products in 9 categories**; Angular SSR on Express, schema.org JSON-LD, Angular 17 → 20; **Lighthouse 97–100 performance, 100 SEO**.
- **Akhali Sakhli** (akhalisakhli.com): responsive Angular website for a real-estate platform, live.

Angular Developer · PetC — Dec 2025 – Jun 2026

Contract · Remote · Social platform for pet owners with vet and grooming services · ~30-person team

- Built the core frontend features: **user profiles, an Instagram-style stories viewer, search, scrolling feeds, QR-code pages and forms** (Angular Standalone Components, Signals, RxJS, REST APIs, lazy-loaded routes).

System Team Lead · Lean Tech — Jan 2024 – Mar 2026

Part-time · Industrial technology company

- **Trained and led a 5-person team from zero coding experience** to building STM32-based house detection systems and pneumatic mechanism prototypes.
- Ran development cycles from planning to implementation, hands-on in C (GPIO, UART, I²C, SPI).

IT Content Manager · Icecat — Oct 2022 – Jul 2023

Full-time

- Managed and optimised IT product content across platforms for accuracy, consistency and SEO.

SELECTED PROJECTS

TatooGen · AI tattoo design app — GitHub

Two-stage AI pipeline (gpt-4o-mini prompt rewriter → gpt-image-1) with async jobs on Postgres; Firebase Auth and App Check on every call; credits economy with server-verified Google Play / App Store purchases and replay protection.

Flutter · Riverpod · Node.js · Express · PostgreSQL · OpenAI API · Firebase

Shello · Full-stack e-commerce platform — shello-demo.vercel.app · GitHub

Rotating, HMAC-hashed refresh tokens in HttpOnly cookies, Google OAuth, admin TOTP 2FA and RBAC; transactional checkout with atomic stock decrements and server-side pricing; Georgian/English SSR; Docker Compose behind Nginx plus Kubernetes manifests; secret-scanning CI.

Angular 18 SSR · Node.js · Express · TypeScript · MongoDB · Docker · Kubernetes

STM32 firmware · Open-source embedded work — github.com/WERSIT35

MPU-6050 artificial horizon on bare metal (no HAL, two I²C buses, boot diagnostic ladder); OV5640 camera capture with DCMI + DMA2 and a framed, checksummed UART protocol; Ethernet MQTT node on lwIP without an RTOS.

C · STM32L031 / STM32F767 · I²C · DCMI · DMA · lwIP · MQTT

SKILLS

Backend & data	Node.js, TypeScript, Fastify, Express, REST API design, PostgreSQL, MongoDB, SQL, Zod
Frontend & mobile	Angular (Signals, SSR, RxJS), HTML5 Canvas, SCSS, Flutter (Riverpod)
Security	HMAC request signing, nonce replay protection, Ed25519 signatures, JWT & OAuth, TOTP 2FA, rate limiting, threat modelling
Infra & quality	Docker, Kubernetes / k3s, Nginx, Caddy, GitHub Actions, Vitest, end-to-end & parity testing, observability (W3C tracing, Prometheus)
Applied AI	OpenAI API (gpt-image-1, gpt-4o-mini), Claude & Claude Code
Embedded	C, STM32 (bare-metal & HAL), I²C, SPI, UART, DMA, lwIP, MQTT
iGaming & risk	RGS architecture, game maths & RTP simulation, seeded RNG, operator & seamless-wallet integration, AML transaction monitoring, fraud & bonus-abuse investigation, Power BI
Leadership	Team leadership, mentoring, technical writing (ADRs, design docs, runbooks)

EDUCATION

MSc DevOps (in progress) · Business and Technology University (BTU), Tbilisi — Expected 2026

BSc Computer Science · University of Georgia, Tbilisi — 2019 – 2025

COURSES & CERTIFICATIONS

Anthropic · Claude Code in Action · AI Fluency: Framework & Foundations · Claude Cowork — 2025

freeCodeCamp · JavaScript Algorithms and Data Structures · Front-End Development Libraries — 2024

w3schools · Introduction to AWS Solutions — 2023

LANGUAGES

Georgian (native) · English (full professional) · Russian (professional working) · German (conversational)