Aviddaram Bazarragchaa

Software Engineer · Full-stack and AI agents

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Summary

Software engineer with about 2.5 years of shipping production systems: payment features at a national bank, an AI agent platform at an open-source CRM, and the online store for my family's business. I own features end to end, from schema to UI to deploy, and I start work nobody assigned, like the code quality and SEO initiatives I pitched and now lead at erxes. Fluent English.

Experience

erxes · Backend Engineer, full stack · Remote **Jun 2026 – Present**

Open-source CRM and customer-experience platform. 117 merged PRs across 6 repositories in 4 months.

- Built most of the erxes AI agent plugin with one other engineer on TypeScript, Mastra, AI SDK, React, and MongoDB: persistent memory, skills the agent writes from a chat, streaming chat, PPTX, PDF, and chart artifacts, and Mongolian voice with barge-in.
- Cut production tool-call failures. 45 of 45 deal-creation calls failed on an ID check and about 19% of all tool calls failed on bad arguments. Fixed both with a name-to-ID resolver and real GraphQL schema facts in tool definitions.
- Fixed chat streaming that fell minutes behind the model. An 800-word reply took 253 s to render. Memoized rows, one store write per frame, and per-block markdown cut it to 32 s.
- Integrated Executor, an MCP and API integration layer, and Cloudflare OS into erxes as an embedded product with per-tenant provisioning and passwordless SSO.
- Added the missing pieces for plugins to live in their own repositories outside the erxes monorepo: dev-time loading, self-served UI remotes, and a shared theme. Now on the plugin marketplace and hackathon organizing teams.
- Pitched a code quality initiative and lead it with the CTO. Moved a full plugin to schema-first GraphQL codegen in a 12-PR stack across 280 files, added build-time contract checks, and help other plugin teams migrate.
- Cut the embeddable messenger widget bundle by 72–82%: Lighthouse mobile 63 → 86, total blocking time 2.4 s → 0.56 s. Fixed an 18 s LCP on erxes.io as part of SEO work I pitched and run.

Amerik Vitamin · Founder-engineer, family business **Jul 2025 – Present**

- Built and run amerikvitamin.mn, the online store for my mom's US supplement import business: Astro and Solid storefront, React admin, Hono and tRPC on Cloudflare Workers, Postgres, QPay checkout. 652 products, 483 web orders, 367 customers.
- Building a Messenger AI shopping agent that identifies products from customer photos and takes orders in chat.

Golomt Bank · Software Engineer, SocialPay backend team **May 2024 – Jun 2025**

SocialPay is Golomt's payments and wallet app. Part-time during semesters, full-time on breaks. Java, Spring Boot, Oracle, ArgoCD.

- Wrote the full backend for the bank's SME merchant app alone in my first 4 months, learning Spring Boot on the job: accounts, transactions, POS history, supply orders, and repair requests. Shipped it to UAT and production and set up basic CI/CD with the devops team. The bank held the public launch.
- Owned MostMoney QR payments in SocialPay: a new QR path next to QPay, settled through account-based transfers.
- Built SocialPay's part of Mongolia's IBAN migration: IBAN lookup through the Bank of Mongolia and registration in the national account registry, so any bank app can find a user by phone number or email.
- Owned the e-barimt e-receipt integration end to end. Designed stored push notifications, which until then went out from the Firebase console and were never saved.
- Covered my team lead's exec-visible work during his leave. Supported the Apple Pay launch and debugged WeChat Pay QR deep links with WeChat's engineers.

Selected projects

- **T3 Code**, open-source contribution, 27k stars. Found and fixed quadratic event-log growth in the ACP adapter: streamed tool updates made up 95% of 3.68M rows in a 17.8 GB SQLite database. Merged by the maintainer (#16682).
- **Tranzfer**. Resumable file delivery for creators and editors, preparing for public launch. Solid 2, Effect, and Alchemy on Cloudflare D1 and R2, with per-PR preview environments and e2e tests in CI.
- **khaan-client**. Typed TypeScript SDK for Khan Bank's undocumented API: OTP device login, transactions, and automatic transfer reconciliation.
- **Herdr Orchestrate**. Runs multiple AI coding agents in visible terminal sessions with durable state, isolated Git worktrees, and model routing.
- **DMS plugins**. DankMaterialShell plugins for my Linux desktop: an AI usage widget with a Go service, a call overlay, and a casting control. QML, Go.

Skills

Languages: TypeScript, Java, Go, Kotlin, Python, SQL, QML
AI: Mastra, AI SDK, MCP, tool calling, agent memory, human-in-the-loop, voice
Backend and data: Bun, Node.js, Elysia, Hono, Effect, tRPC, GraphQL, Spring Boot, Drizzle, PostgreSQL, Oracle, MongoDB, Redis
Frontend and infra: SolidJS, React, Astro, TanStack, Tailwind, Cloudflare Workers, Durable Objects, D1, R2, Alchemy, Docker, ArgoCD

Education

National University of Mongolia · B.Sc. Information Systems 2022 – 2026
Pinecone Academy · Software engineering bootcamp 2023 – 2024