

SIEGFRIED BOZZA

Full-stack engineer · Web3 · AI integrations

Annecy, France · siegfried.bozza@protonmail.com

[GitHub](#) · [Portfolio](#) · [LinkedIn](#)

Remote-first · Open to global relocation

Target roles: Web3 full-stack · Smart-contract engineering · Agentic backends · DeSci

PROFESSIONAL SUMMARY

M.Sc. in Molecular Biology and **M.Eng.** in Civil / Environmental Engineering — both earned in **France**, with three peer-reviewed publications and roughly fifteen years across research and field engineering in **France, Canada, and Switzerland** — before transitioning to software in 2022. Two years of professional **React / Next.js** production delivery at Prismo.io (SaaS, CQRS, hexagonal architecture, Supabase, Vitest / Cypress), alongside three end-to-end Web3 case studies on Base and Ethereum Sepolia and one full-stack Web2 auction platform — combining **Solidity + Foundry, Chainlink** oracles, durable **LangGraph + Inngest** agents, **IPFS, EIP-712**, and event-driven CQRS.

TECHNICAL SKILLS

Frontend & UI: React 19, Next.js (App Router), TypeScript, TanStack Query / Table, nuqs, Tailwind CSS, shadcn/ui, Zod, Recharts, React Hook Form, Uppy, Lingui

Web3 & smart contracts: Solidity, Foundry (contracts, tests, deploy scripts), OpenZeppelin (ERC-20 / 721 / 1155, ReentrancyGuard, AccessControl), Chainlink (VRF v2.5, Automation, Price Feeds), viem, wagmi, EIP-712, Reown AppKit, IPFS (Pinata), Alchemy (RPC / Webhooks / WebSockets), Tenderly

AI & orchestration: LangGraph.js (agentic graphs, human-in-the-loop, checkpointers), Inngest (durable execution), Gemini, Exa AI

Backend & data: Node.js, Supabase (RPC, RLS, Realtime, Edge Functions, CRON), Neon Postgres, Drizzle ORM, event-driven design, CQRS, ports & adapters, Stripe API

Testing & DevOps: Foundry, Vitest, Cypress, Jest, GitHub Actions, Vercel, CI/CD, Git Flow

Languages: French (native), English (fluent), German (B1)

WORK EXPERIENCE

Prismo.io — Hybrid, France · Full-Stack Engineer · Production SaaS · Aug 2024 – Present

- **High-performance UI:** Built and shipped responsive data grids with **TanStack Table**, type-safe server-side URL state (**nuqs**), and **Recharts** KPI widgets on a **shadcn/ui + Tailwind CSS** design system, on a multi-tenant SaaS used by paying customers, with i18n, **Next.js App Router** streaming and **React Suspense** for smooth UX on large datasets — deployed on **Vercel**.
- **CQRS & event-driven patterns:** Implemented read / write separation across core domain workflows over **Supabase** primitives (database triggers, RPC functions, typed Supabase client) so the write path stayed isolated from read projections in production.
- **Domain-driven design:** Refactored domain logic out of infrastructure via **ports / adapters** (hexagonal architecture) so feature work could move without touching Supabase wiring.
- **Testing:** Wrote **Vitest** unit tests and **Cypress** end-to-end tests on critical user workflows before merge.
- **AI-augmented development:** Integrated AI agents in **Cursor** for planning and implementation; all agent-generated code reviewed under the same PR gates as human code — architectural review, peer review, tests passing.
- **Agile delivery:** Contributed in two-week sprints in **Linear** with backlog refinement, peer code reviews on every PR, **Git Flow** branching, and required CI checks before merge to main.

Freelance — Remote, France & Indonesia · Full-Stack Developer · Jul 2023 – Aug 2024

- Shipped **React / Next.js** applications styled with **Tailwind CSS + shadcn/ui** and **Framer Motion**, backed by **MongoDB**, with unit and integration tests in **Jest**.
- Built front-end features for DeXter-on-Radix, an open-source decentralized exchange DApp, in an async distributed team.

Renuo AG — Zurich, Switzerland · Software Engineer Intern · Jul 2022 – Jun 2023

- Built and shipped full-stack features across multiple agency clients in **Ruby on Rails**, JavaScript / TypeScript, and **React; RSpec** for Rails tests, clean-code practices, and agile delivery.

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TECHNICAL PROJECTS

BioVerify — Agentic DeSci Case Study (Mar–Apr 2026) — [GitHub](#) · [Article](#) · [Live demo](#)

- Case study treating scientific peer review as a **coordination game**: authors stake ETH, a **LangGraph** submission agent screens plagiarism (**Exa AI + Gemini**), **Chainlink VRF** selects reviewers from the staked pool, and human verdicts settle on-chain via **EIP-712** signatures — research artifacts pinned to **IPFS**.
- Getter-less Solidity contract; **Alchemy Notify** webhooks (**HMAC-SHA256**) project events into **Neon Postgres (Drizzle)** with optimistic concurrency; **viem** WebSockets + **TanStack Query** drive the live UI.
- Durable orchestration: **Inngest** (step.run, retries) and **LangGraph** checkpoints carry multi-day human-in-the-loop review across serverless cold starts.
- **BioVerifyV3**: 50 **Foundry** tests across 12 suites — 100% lines / statements / branches / functions; deployed on **Base Sepolia** and **Ethereum Sepolia**.
- Public **Telegram** bot mirrors contract state transitions across both testnets.

Bet2Gether — Chainlink-Settled Prediction Market (Oct–Nov 2025) — [GitHub](#) · [Live demo](#)

- Proof-of-concept prediction market on **Ethereum Sepolia**: **Chainlink Automation** calls performUpkeep to resolve rounds at deadline without operator intervention; settlement reads **Chainlink Price Feeds**.
- Time-weighted payouts (earlier bets earn a larger share); **CEI** pattern and **OpenZeppelin** nonReentrant on claimReward.
- **Chainlink VRF v2.5** for unpredictable **ERC-1155** reward token IDs; a **Tenderly** Web3 Action bridges resolution events to a role-gated mint.

Forge — Atomic ERC-1155 Crafting (Oct–Nov 2025) — [GitHub](#) · [Live demo](#)

- Experiment in **ERC-1155** crafting rules: rules contract (**Forge**) vs ledger (**FToken**) with immutable ownership; composite IDs 3–6 minted via atomic **burnBatch** + **mint** in one transaction.
- Cooldown-gated basic mints (IDs 0–2); event-driven **Next.js** UI with **wagmi**, **Alchemy** WebSockets and **TanStack Query**.
- 37 **Foundry** tests — 100% coverage on project-owned contracts (lines / statements / branches / functions).

GavL — Next Auctions: Real-Time Auction Orchestration (Sep–Oct 2025) — [GitHub](#) · [Live demo](#)

- Full-stack **Web2** auction platform on **Next.js** + **Supabase**, with domain-driven layout (domains, ports, repositories, services) and i18n FR / EN / DE (**Lingui**).
- **Supabase Realtime** for live bids and notifications; a **CRON** job triggers an **Edge Function** for scheduled auction closure.
- **Stripe Checkout** with verified webhooks; service-role client safely bypasses **RLS** to update payment states asynchronously.
- URL-driven filters (**nuqs**), **TanStack Table**, **Recharts** dashboards, **Jest** tests.

EARLIER CAREER (PRE-SOFTWARE)

KIBAG Gruppe · SERPOL · SITA Remediation (SUEZ) — France & Switzerland · Land Remediation Engineer / Project Manager · 2012 – 2020

- Led environmental fieldwork, soil-sampling operations, and compliance reporting for industrial remediation sites.

INSERM · University of British Columbia — France & Canada · Molecular Biology Researcher · 2001 – 2009

- Conducted genomic research; co-author on three peer-reviewed studies ([J. Neurosci. Res.](#), [Fungal Genet. Biol.](#), [Dev. Biol.](#)).

EDUCATION

- 2025 — Smart-Contract & EVM Security — Metana (remote)
- 2021–2023 — M.Sc. Blockchain Technologies — University of Barcelona (remote)
- 2022 — Full-Stack Software Engineering Bootcamp — Le Wagon, Zurich
- 2012 — M.Eng. Civil & Environmental Engineering — École des Mines, France
- 2001 — M.Sc. Molecular Biology & Genetics — University of Montpellier, France