

Zachary Roth

Software Engineer: AI Systems, Developer Tools, Full-Stack Product, Web3

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Summary

General technical resume for full-stack/product engineering, AI systems, developer tools, and Web3 infrastructure. I ship TypeScript/Python systems across MCP/API surfaces, source-linked context ingestion, workflow orchestration, evaluation systems, multi-tenant data models, scoped access, approvals, audit logs, and technical-user UX.

Experience

Raintree Technology

Founder and Product Engineer

Redwood City, CA

2025 - Present

- Built products across TypeScript, React/Next.js, Python, Hono, Drizzle, Postgres, ClickHouse, Stripe, Cloudflare Workers/D1, and MCP: requirements, prototypes, API/data models, deployment, eval/debug, observability, and iteration.
- Built **BetterOff**, an in-production multi-tenant finance SaaS with household-scoped reporting/data access, read-only integrations, billing/webhooks, AI tools, write approvals, and audit logs.
- Created **docpull**, a local-first Python CLI/MCP context system with hardened fetch validation, Cursor setup, chunks/provenance, a **provider routing benchmark**, and a v5 free-first surface with `--budget 0`, run accounting, and escalation suggestions before paid provider use.
- Built **cfg-eval**, an NL-to-ClickHouse SQL eval harness with grammar-constrained decoding, live reference runs, execution grading, schema checks, refusal handling, and adversarial impossible-question coverage.
- Built **HQ.VPS**, a private authenticated HTTP/MCP backend with context search, write proposals, audit logs, backups, and workflow tooling; built **BuilderGraph**, a Cloudflare/D1 crypto open-source ecosystem graph indexing 500K+ open-source repositories from Electric Capital/GitHub data with JSON-RPC/MCP, webhooks, and integration paths.
- Built **HIG Doctor**, an agent-native Apple HIG lookup/audit system with 14 skills, 156 reference topics, 348 detection rules across 12 UI frameworks, MCP lookup/audit tools, and CLI/browser reports; also shipped **create-agent-starter**.

Aptos Labs

Developer Ecosystems Manager to Developer Relations Engineer

Palo Alto, CA

2023 - 2026

- Worked directly with developers, founders, partners, product, and engineering teams on technical enablement, launch readiness, integration feedback, ecosystem data, developer reporting, content, and adoption blockers.
- Helped grow ecosystem assets from roughly \$200M to \$1.2B+ through partner enablement, launch support, incentive/program work, technical content, and cross-functional product/adoption feedback loops.

Solflare

Product Manager

Oct 2021 - Mar 2023

- Worked across product, content, and user research during a high-growth period in the Solana ecosystem; helped shape product strategy as Solflare grew to 500K users.
- Worked with founders and engineers on roadmap, launches, wallet UX, trading-infrastructure priorities, feedback loops, partner materials, and user/technical content.

Selected Technical Work

SimpleOS - Educational Unix-like C/x86 OS with user space, terminal/shell, syscalls, processes, paging/virtual memory, filesystem primitives, and a browser ISO demo via v86. *C, x86 asm, v86*

docpull / cfg-eval - Source-linked docs/context ingestion plus constrained SQL evals, execution grading, refusals, provider routing, and budget accounting. *Python, MCP, evals*

BetterOff / HQ.VPS - Production finance SaaS plus private agent backend: multi-tenant data, integrations, tools, approvals, audit logs, backups, and policy gates. *Next.js, Postgres, agents*

BuilderGraph / HIG Doctor - Crypto open-source ecosystem graph/snapshots and UI-quality audit tooling for coding-agent workflows. *Cloudflare, APIs, MCP*

Skills

Languages: TypeScript, Python, SQL/Postgres, ClickHouse, Rust, C, Bash, Zig

AI / agents: MCP tools, tool calls, coding agents, context ingestion, retrieval, eval harnesses, provenance, audit boundaries

Product systems: React/Next.js, HTTP APIs, webhooks, auth, billing, multi-tenant data models, reporting, observability

Web3 / DevRel: developer enablement, wallet UX, ecosystem data, integration debugging, technical content, launch feedback

Education

DePaul University - B.M., Classical Music