Nico Baier, Ph.D.

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Summary

Full-stack TypeScript engineer building AI-powered developer tools and edge-first architectures. Created autonomous AI agents, per-user isolation systems on Cloudflare Durable Objects, and web apps used by 200+ developers. Deep expertise in Cloudflare Workers, React/Next.js, and LLM integration. Track record of rapid prototyping and end-to-end ownership.

Technical Skills

- **Core**: TypeScript, JavaScript, React, Next.js, Node.js, Python, SQL, Git, API Development
- **Edge/Cloud**: Cloudflare Workers, Durable Objects, KV, D1, Vercel, Hono, Alchemy, Val Town
- **AI/LLM**: OpenAI API, Anthropic API, Vercel AI SDK, Model Context Protocol (MCP)
- **Data**: SQLite, PostgreSQL, Turso/LibSQL, PGlite, Drizzle ORM

Software Projects

Idea Explorer | AI Research Agent | GH Repo ↗

- Built an autonomous research assistant using LLMs to explore and refine ideas with tool chaining
- Implemented persistence layer and practical agent workflows for iterative research sessions
- **Tech stack**: TypeScript, Cloudflare Workers, OpenAI API, Hono

Per-User Durable Objects API | Edge Architecture | GH Repo ↗

- Built per-user data isolation architecture using Cloudflare Durable Objects with SQLite storage
- Implemented infrastructure-as-code deployment with Alchemy; each user gets dedicated edge database
- **Tech stack**: TypeScript, Cloudflare Workers, Durable Objects, Drizzle ORM, Hono, Alchemy

SQLite Explorer | Web App | Project ↗

- Built a SQLite database browser on Val Town used by 200+ developers; rewrote from HTMX to React
- Featured on *Learn with Jason* ↗ by Val Town creator Steve Krouse
- **Tech stack**: React, TypeScript, CodeMirror, Hono, Tailwind CSS, Val Town

HN Notifier | Edge API | GH Repo ↗

- Developed a Cloudflare Workers API for tracking new replies to Hacker News threads
- Implemented endpoints with Zod validation for following threads and managing reply counts
- **Tech stack**: TypeScript, Bun, Hono, Zod, Cloudflare Workers, Cloudflare KV

Contract Work

Val Town | Freelance Software Engineer | Project ↗ 2025

- Built Attio-to-Slack integration template enabling CRM event notifications via webhooks
- Implemented SQLite state management and published as remixable template
- Featured as an official Val Town template ↗
- **Tech stack**: TypeScript, Val Town, Hono, SQLite, Slack Webhooks, Attio API

Mastra | Contributor | Case Studies ↗ 2025

- Authored technical case studies documenting enterprise AI workflow implementations
- Conducted customer interviews to capture integration patterns and developer adoption stories

Professional Experience

Natural Language Analyst Feb 2023 – Jan 2025

Bold, Ltd.

- Built and maintained a library of 15+ SPARQL queries for common data operations, increasing efficiency by 83%
- Implemented data analysis workflows for English, German, Dutch, and Polish pipelines
- Led a team of 7 data contractors, ensuring data quality across 5 language pipelines

Inbound Specialist Apr 2021 – May 2022

Stripe, Inc.

- Wrote R scripts to standardize linguistic data from applicant tracking systems, reducing errors by 22%
- Established data-driven processes for new inbound sourcing department, leading to 30% faster resume review

Postdoctoral Researcher & Lecturer Sep 2017 – Jul 2020

University of British Columbia & McGill University

- Designed metadata standards for a 12,500+ entry text dataset; managed team of 15 for data collection and QA

Education

- **Ph.D., Linguistics** • 2018, University of California, Berkeley
- **M.A., Linguistics** • 2013, University of California, Berkeley
- **B.A., Linguistics & German** • 2010, University of Michigan

Languages

- **English** (Native)
- **German** (Fluent)