TOBIAS LOHSE

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Chicago, IL

I am a leader with hands-on experience in building web and native apps, architecting backend systems, training ML models, and managing a few dozen contributors.

9/2023 – PRESENT | 1 YEAR 8 MONTHS | REMOTE

Founding Engineer, Orca DB

- Implemented agentic copilot for our app with Pydantic AI and Vercel AI SDK.
- Finetuned embeddig and reranking models from Hugging Face, built custom PyTorch models, setup Vector DBs, and analyzed embeddings with techniques like clustering.
- Architected APIs to serve ML models using FastAPI, Milvus, and OpenTelemetry.
- Lead the design and documentation of our Python SDK leveraging Mkdocs.
- Built a full-stack web app for inspecting and analyzing context usage of AI models from scratch with TypeScript, Next.js, PostgreSQL, OpenTelemetry, Jest, and GitHub Actions.
- Implemented an accessible design system using Tailwind CSS, Radix UI, and Recharts.

6/2022 – 7/2023 | 1 YEAR 2 MONTHS | REMOTE

Senior Engineering Manager, Indigo Ag

- Managed 2 Scrum teams with 7 full-stack engineers building education and impact modeling tools, increasing enrollments in our carbon credit program by 80%.
- Coached 2 engineers to promotion by empowering them to expand their impact.
- Led company-wide frontend chapter and book club about system architecture.
- Evolved on-call processes, and planned department on-site with 80 participants.

9/2020 – 4/2022 | 1 YEAR 8 MONTHS | REMOTE

Associate Director, Tandem Diabetes Care

- Spearheaded launch of diabetes management platform MVP for 330k patients.
- Established CI pipeline to generate regulatory IEC 62304 filings from integration tests.
- Established company-wide design system and unified API gateway across various desktop, iOS, Android, and web clients by leveraging React Native and GraphQL.
- Scaled frontend team to 20 by hiring 3 managers, 1 architect, and 7 engineers.
- Restructured 60 contributors into cross-functional teams to increase agility and speed.
- Developed new performance review system for department with 10 managers.

10/2016 – 10/2020 | 4 YEARS | POTSDAM, GERMANY & REMOTE

Co-founder & CTO, Cinuru Research

- Co-founded startup providing loyalty apps for cinemas and increasing ticket sales by 20% through personalized movie recommendations.
- Headed planning and implementation of a new app (4.7 average rating) for the largest German cinema chain with 200k MAUs, including integration with POS system.
- Led implementation and design of React Native apps, React web dashboards, Node.js GraphQL services, design system, web scrapers, Email templating, and CI/CD pipelines.

1/2016 – 9/2016 | 9 MONTHS | BERLIN, GERMANY

Machine Learning Engineer, Aaron AI

- Implemented an NLP system for call routing at a young AI startup with Python.

11/2012 – 1/2015 & 7/2018 – 8/2018 | 2 YEARS 5 MONTHS | BERLIN, GERMANY

Web Developer & Designer, Freelance

- Built websites with PHP and jQuery, and a dating app with React Native.

SKILLS

~ 12 YEARS

Web & App Development

TypeScript, React (Native), Next.js, Apollo, Relay, Tailwind CSS, SVG, Email, iOS: Swift/Objective-C, Android: Java, Web Workers, Webpack, Jest, Cypress, Playwright, Detox, i18n, a11y, OAuth

~ 8 YEARS

Backend Engineering

Node.js, Python, REST, GraphQL, tRPC, WebSockets, PostgreSQL, SQLite, Redis, MongoDB, OpenTelemetry, DDD, Event Sourcing, CQRS, Micro Services, Docker, Terraform, Serverless

~ 4 YEARS

Machine Learning & AI

PyTorch, Hugging Face, HDSPA, UMAP, Pandas, LlamaIndex, DSPY, R

EDUCATION

Bachelors supported by Scholarship of Studienstiftung des deutschen Volkes

4/2014 – 12/2015 | FREIE U. BERLIN

Bachelor of Arts in Philosophy & Computer Science

5/2012 – 11/2012 | NORTHWESTERN U.

Bachelor Thesis in Quantum Computing

10/2009 – 5/2012 | U. KONSTANZ

Bachelor of Science in Physics

SIDE PROJECTS

Event Sync

Event sourcing based offline-first state synchronization framework

Cocktail Lab

React Native app to manage cocktail recipes with generated images

Styled Native Components

CSS in JS library for React Native