

Software engineer building full-stack applications and developer tools, from React and TypeScript interfaces to APIs and PostgreSQL data models. I lead development of ADIYA Pharma's internal operations platform, following earlier work supporting its IT and production operations.

Experience

ADIYA Pharma Jul 2019 - Present
Software Engineer · Hybrid Jul 2026 - Present

- Lead full-stack development of an internal operations platform with React, TypeScript, Node.js, PostgreSQL and Prisma.
- Build document, ordering, shipping and invoicing workflows with permissions, audit trails and automated validation.
- Develop Divo, an in-app AI assistant for business workflows, including permission-aware ERP interactions.

IT & Operations Support Jul 2019 - Jun 2026

- Supported day-to-day IT troubleshooting and hands-on production operations, including packing and related manufacturing work.

Projects

Intent · Typed AI-instruction system github.com/Mihir9702/intent
TypeScript, JSON Schema, deterministic validation

- Designed canonical entities, operations and dependency rules to make ambiguous or conflicting agent instructions machine-checkable.
- Built validation, execution-evidence verification and automated test tooling.

Aura · Paper-trading research foundation (paused) github.com/Mihir9702/aura
Python, FastAPI, PostgreSQL, React, TypeScript

- Built the authenticated workspace, API, append-only double-entry ledger and audited safety controls for a simulated account.
- Added backend and browser tests; market data, strategies and AI analysis remain design-only.

Asterion-256 · Experimental hash research github.com/Mihir9702/Asterion-256
TypeScript, Python, specifications, test vectors

- Created a documented, unaudited hash construction with independent TypeScript and Python implementations and verification vectors.
- Research exercise only; not designed or recommended for production cryptographic security.

Also built: hellomihir.com — a Next.js / TypeScript portfolio with an interactive platformer in its header.

Skills

Languages	TypeScript, JavaScript, Go, Python, Java, SQL	Systems	Linux / WSL2, Docker, networking, security, AWS
Frontend	React, Next.js, Vue, Vite, Tailwind CSS, Electron	Data	PostgreSQL, Prisma, SQLAlchemy, Redis, MongoDB, pgvector
Backend	Node.js, Express, FastAPI, Spring, Django, GraphQL	Testing	Vitest, Playwright, pytest, Ruff, mypy
Additional	Three.js, Firebase, Cloudflare, Vercel, Aiven	Tools	Git, GitHub Actions, JSON Schema, Figma, Vim, Asana

Education & Certification

Tech Elevator · Certificate, Java Full-Stack Software Development Jan - Apr 2024
Ironhack · Certificate, Full-Stack Web Development Jan - Mar 2022
Drexel University · Computer Science coursework Sep 2020 - Apr 2021
Oracle · Certified Associate, Java SE 8 Programmer Oct 2023