



Oleksii Trofymenko

Senior Full-Stack AI Engineer

Lisbon, Portugal · Remote, EU and US-overlap hours

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10+ years

web and mobile, end to end

25x

faster database queries

34 → 0

exposed data endpoints

500+

users on an AI platform I led

SUMMARY

Senior Full-Stack AI Engineer with 10+ years of experience shipping web and mobile products end to end in TypeScript, React, Next.js, React Native, Node.js and Python on PostgreSQL and AWS. Builds production LLM features (AI agents with tool calling, RAG, Langfuse tracing, evals in CI) with measurable results: 25x faster database queries, 4x fewer hotfixes, exposed data endpoints cut from 34 to 0. Project lead for a team of 4 engineers reporting to the CTO; mentors engineers to senior level.

SKILLS

Languages

TypeScript JavaScript Python Go SQL

Frontend and Mobile

React Next.js React Native Expo and EAS Tailwind CSS Zustand TanStack Query Apollo

Core Web Vitals

Backend and Data

Node.js NestJS FastAPI REST GraphQL PostgreSQL pgvector Prisma Redis Firebase

Zod

AI and LLM

Vercel AI SDK OpenAI Claude Gemini AI agents tool calling RAG vector search Langfuse

LLM evals MCP Ollama

Cloud and DevOps

AWS Docker Terraform Pulumi GitHub Actions CI/CD Vercel

Testing and Observability

Vitest Jest Playwright React Testing Library Maestro Sentry OpenTelemetry Grafana

PostHog

Leadership

technical leadership mentoring code review system design

EXPERIENCE

Senior Full-Stack AI Engineer | Capsule (NDA)

Oct 2026 – Present

Remote · AI wardrobe stylist mobile app

- Mobile client: React Native (Expo, TypeScript) app where users catalogue their wardrobe and get AI outfit suggestions; iOS builds on EAS, end-to-end tests with Maestro.
- AI backend: Python FastAPI service (Pydantic, SQLAlchemy 2, Alembic migrations) on PostgreSQL with pgvector for garment embeddings and similarity search; Redis (arq) runs background jobs for image processing and model calls.
- AI pipeline: local LLMs on Ollama and a vision model that recognises garments from photos; a cross-encoder reranker orders outfit candidates by relevance; Langfuse traces every prompt with its cost and latency.
- Platform (v2): Go API gateway (chi, sqlc, pgx) for a fast, typed public API; an MCP server that exposes the wardrobe to AI assistants; OpenTelemetry, Prometheus and Grafana for monitoring; Caddy for HTTPS and Tailscale for private networking; CI on GitHub Actions.

Stack: React Native, Expo, TypeScript, Python, FastAPI, Pydantic, SQLAlchemy 2, Alembic, Go, PostgreSQL, pgvector, Redis, Ollama, Langfuse, OpenTelemetry, Prometheus, Grafana, Caddy, Tailscale, GitHub Actions

Freelance Full-Stack Engineer (part-time) | Sviy Dvir

Jul 2026 – Oct 2026

Remote · E-commerce store for plants and garden supplies, Ukraine

- Took the store from zero to production in 4 weeks part-time, from requirements to launch, with admin panel and ad tracking; live since 1 Sep 2026 with paid traffic and paying customers.
- Built a custom WooCommerce child theme (PHP 8.2, vanilla JS, own CSS design system) and integrations with Nova Poshta, Ukrposhta, Telegram, Google Sheets, Google Merchant Center and the server-side Meta Conversions API.
- Set up deploys from GitHub Actions and LiteSpeed caching under a Core Web Vitals performance budget.

Stack: WordPress, WooCommerce (HPOS), PHP 8.2, JavaScript, MySQL 8, LiteSpeed Cache, GitHub Actions, Google Ads, Meta CAPI

Lead Full-Stack AI Engineer | Impact Capitol DC

Sep 2025 – May 2026

Remote (United States) · AI real-estate and mortgage intelligence platform, 500+ users

- Took the platform from first commit to production as project lead, leading a team of 4 (3 developers and a DevOps engineer) with QA and product, reporting to the CTO; mentored the 3 developers in their career growth.
- Rebuilt the client app and removed the UI defects driving churn, growing to 500+ active users (about 5x) and winning back users lost to competitors.

- Turned a single AI Q&A feature into an AI real-estate assistant that detects user intent and calls role-based tools, on Vercel AI SDK v5 (Claude, OpenAI, Gemini) with typed tool calling and streaming.
- Capped LLM spend at a fixed monthly budget, cutting token costs by about 40%, with per-user rate limits, retry caps and caching of repeated data requests.
- Routed every model call through Langfuse (tokens, cost, latency per request) and added evals to CI, raising the eval pass rate from about 70% to 90%.
- Built a public area-intelligence API (crime, investment, demographics per area) used by both the assistant and the UI.

Stack: Next.js 14 (App Router), React, TypeScript, Tailwind, shadcn/ui, Vercel AI SDK, Zod, PostgreSQL, pgvector, Pinecone, Node.js (Fastify, Express), Redis, AWS (ECS Fargate, Aurora, S3, SQS, Cognito, CloudFront, WAF), Pulumi, Docker, Langfuse, Sentry, PostHog, Jest

Senior Full-Stack Engineer | Ovogene

Feb 2024 – Aug 2025

Remote · Donor egg, sperm and embryo bank platform for clinics (B2B) and patients (B2C) in the US, Europe and Israel, 300+ users

- Cut publicly exposed data endpoints from 34 to 0, meeting GDPR requirements for sensitive donor data.
- Added indexes on the core tables, cutting p95 latency of key queries from about 2,500 ms to 100 ms (25x) and lowering database load.
- Improved CLS from 1.0 to 0.1 and made admin pages 30% lighter.
- Grew unit tests from 0 to 875 for donor-efficiency scoring, the audit log and validators; added Playwright end-to-end tests for ordering, drafts and admin edits.
- Added Sentry and LogRocket so production errors were caught before customers reported them.

Stack: Next.js 14 (Server Actions), React, TypeScript, PostgreSQL, Prisma, NextAuth, Zod, Tailwind, AWS (EC2, S3, SES), Docker, Terraform, GitHub Actions, Vitest, React Testing Library, Playwright

Lead Front-End Engineer (Web and Mobile) | Geniusee

Jun 2020 – Feb 2024

Kyiv, Ukraine · Software services company; led both web and mobile directions, mostly React Native apps, for clients in the UK, US and France

- **Zedosh (UK FinTech app that pays users for watching ads):** fixed unreliable video playback with an event queue using retries and idempotency keys, a cache fix and next-video prefetch, growing new users 4x and bringing back churned users.
- **Zedosh:** moved PIN and tokens to Keychain/Keystore, migrated state from React Context to Zustand, rebuilt PostHog and Amplitude funnels, and added CI tests for reward accrual and withdrawals.
- **WayWyser (US family caregiving app):** added tests on login, invitations and payments, cutting hotfixes 4x and making OTA releases safe.
- **WayWyser:** switched Apollo to cache-and-network, rendering screens 2x faster; moved all secrets to EAS Secrets; built the analytics funnel from onboarding to payment with D1-D30 retention.
- **Miroki (French club and community app):** took the app from zero to production with the client's developer, designing the Firestore data model, GDPR-safe access rules, push notifications and cohort analytics.

Stack: React Native, TypeScript, Expo (EAS, OTA), React Navigation, GraphQL, Apollo, Zustand, MMKV, Firebase, AWS Amplify (Cognito), Stripe, Plaid, Open Banking (MoneyHub), Mux (HLS), Sentry, PostHog, Amplitude

Senior Front-End Developer | StarOfService

Aug 2017 – May 2020

Paris, France · Services marketplace in 30+ countries

- Proposed and built contact masking until the first booking was confirmed, so clients and professionals stopped moving repeat deals off the platform; site traffic grew 3x.
- Built on-platform loyalty rewards for clients, raising orders up to 6x and new professional sign-ups nearly 4x.
- Delivered monthly order analytics for clients and professionals.

Stack: React, Redux, TypeScript, React Native, Node.js, Symfony, Docker

Earlier Experience

- Front-End Developer, Woorx (Syntech Software), 2016 – 2017
- Junior Front-End Developer and QA Engineer, Giga Team, 2015 – 2016

PROJECTS

PetWatch | github.com/OleksiyTrofimenko/pet-watch

2026

iOS and Android app with a REST API, built solo in 3 days

- Built a TypeScript monorepo with Expo (React Native) and NestJS 11 on Prisma and PostgreSQL, sharing one Zod contract between API and forms.
- Implemented JWT with rotating refresh tokens, argon2id hashing, rate limiting, per-resource access control and direct-to-S3 uploads.
- Tested with Jest, a Supertest access-control matrix and Maestro (iOS, Android) in GitHub Actions; built AI-first with Claude Code and MCP servers driving the iOS simulator.

EDUCATION

Specialist Degree (5-year, Master's equivalent), Automation and Computer-Integrated Technologies, National Metallurgical Academy of Ukraine, Dnipro, 2004 – 2009

LANGUAGES

English: C1 (professional)
Ukrainian, Russian: native
Portuguese: A1 (learning)