

Kiryl Viarenich

Senior Full-Stack Engineer

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Summary

Senior full-stack developer with 6 years of experience building TypeScript products with React, Node.js and NestJS. Currently owns features for a Swedish fintech from MongoDB models and background jobs through APIs to the production UI.

Technical Skills

AI & Agents	Claude Code, Claude Design, Model Context Protocol (MCP), Vercel AI SDK, LangChain, RAG, structured LLM output
Backend & Data	Node.js, NestJS, REST APIs, MongoDB, PostgreSQL, SQL, Redis, nestjs/bull, JWT, OAuth, Auth0
Frontend	React, TypeScript, Next.js, Vite, Redux Toolkit, TanStack Query, MUI, Tailwind CSS, SCSS, Mapbox, Three.js, WebSockets, SSE
Testing	Jest, Vitest, React Testing Library, Playwright, Supertest
Cloud & Tools	AWS (ECS, Copilot, CloudWatch), Git, Docker, Docker Compose, GitHub Actions, CI/CD, Turborepo, Sentry, Vercel

Experience

Feb 2026 – Present **Senior Full-Stack Engineer**, *Zensum (Stockholm, Sweden, remote)*

Zensum is a digital loan and mortgage broker operating in Sweden and Norway. The production CRM is used by 80+ loan agents and runs on React, Node.js/NestJS, MongoDB and Redis.

- **Internal CRM platform**
 - Owned features end to end across **MongoDB** models, **Node.js/NestJS** APIs and the final **React** UI.
 - Redesigned the core case management experience in **React** and built a reusable design system, migrating 30+ CRM screens to it.
- **AI features & development workflow**
 - Built an AI case overview with the **Vercel AI SDK**, with server-side validation, retries and summaries in the loan agent's UI language. Worked on CRM **RAG** features with **LangChain**.
 - Used **Claude Code** and **MCP** in day-to-day CRM development, and **Claude Design** for UI prototyping.
- **Product platform & communication**
 - Updated the notification system end to end, from **MongoDB** models and **Redis** background jobs to the **React** notification center.
 - Rebuilt agent-to-customer messaging as a chat-style **React** interface with email rendering, thread previews and offer-aware messages.
 - Resolved reliability issues across the **SSE** pipeline, reducing recurring support incidents and making live updates consistent from backend events to the UI.
- **Engineering & reliability**
 - Improved production debugging by tracing **Sentry** error codes and request IDs across the API and UI.
 - Built a weekly security check with the **Vercel AI SDK** and **Claude** to review **Dependabot** alerts and **npm audit** results, surface critical vulnerabilities and filter out low-risk issues handled by automated dependency updates, reducing alert noise.

Aug 2021 – Feb 2026 **Full-Stack Engineer**, *Elinext (Warsaw, Poland, remote)*

- Designed and led a recurring three-month internal React training program for backend and Angular developers, mentoring 7 employees in small cohorts through workshops, hands-on assignments, and code reviews.

- **Floor Plan Editor**
Browser-based collaborative floor plan editor for a startup product.
 - Owned the collaborative editor architecture and chose **React**, **Redux Toolkit**, **PixiJS** and **MongoDB**.
 - Designed and implemented delta-based real-time synchronization, sending only document changes instead of entire floor plans.
 - Defined a shared document and state model so editor tools handled local and remote changes through the same pipeline.
- **Broadcom Unified Infrastructure Management**
 - Designed the state architecture for a complex **React/TypeScript** application, introducing **Redux** with clear state boundaries and predictable data flows.
 - Established the frontend testing approach and increased code coverage by 30%, making refactoring safer and reducing production regressions.
- **Outlier**
French startup building drone-based software for solar plant inspection and monitoring.
 - Integrated **Mapbox** to visualize infrastructure data across multiple zoom levels, from global power plants down to individual solar panels.
 - Used **Three.js** to display 3D models of the sites reconstructed from drone photos.
 - Used **TiTiler** to overlay orthographic projections onto maps, enabling comparison between satellite data and up-to-date photos.
- **WylerPlot**
Desktop application for a Swiss manufacturer of precision measurement equipment, used to visualize live sensor data.
 - Added secure authentication in **Node.js** with email/password and Google OAuth using JWTs.
 - Designed **PostgreSQL** schemas with migrations and indexes for efficient management of user accounts and project settings.
 - Implemented reliable real-time data handling with **WebSockets** for sensor connections.
 - Profiled and fixed performance bottlenecks in a **React/Electron** desktop app, making live data views smoother.

Aug 2020 – **Frontend Developer**, *Taqtile (Minsk, Belarus)*
Jul 2021

- **eLang**
EdTech platform for language learning and teaching through videos, interactive subtitles and exercises.
 - Built a cross-browser language-learning extension with **React** and **Redux**.
 - Developed and maintained sites with **Next.js** and **Tailwind CSS**, applying SEO basics to improve reach and engagement.
 - Migrated the codebase from JavaScript to **TypeScript** to improve maintainability and safety.

Selected Open-Source Project

2026 – **Creator & Maintainer**, *Paperless Starfruit*
Present

Self-hosted, bring-your-own-keys AI companion for paperless-ngx: better OCR plus automatic titles, tags, correspondents and dates, configured entirely from a web UI.

- Built the full system solo as a **Turborepo**: a **NestJS** API, cron poller, worker and SQLite-backed job queue, plus a **React + Vite** admin app using **TanStack Query** and shared **Zod** contracts.
- Implemented a multi-provider AI gateway for Anthropic, OpenAI, Google, Mistral and local endpoints, with structured output, a review queue and credentials encrypted at rest.
- Shipped a single **Docker** image to GHCR on every release through **GitHub Actions**, with docs and installation guides.
- Reached 50+ stars on GitHub.

 paperless-starfruit.vercel.app  github.com/sabbaken/paperless-starfruit

Education

Bachelor's Degree in Computer Science, *Belarusian State University of Informatics and Radioelectronics*, Minsk, Belarus

Languages

Russian Native
English C1 (Professional working proficiency)
Polish B1 (Intermediate)