

# Sergiy Mirochnyk

## Senior Full-Stack Engineer & AI / LLM Engineer

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Location: Dijon, Bourgogne-Franche-Comté, FR

Work authorisation: French citizen — full right to work in the EU/EEA and Switzerland, no visa or sponsorship required

Availability: remote, hybrid, on-site in Dijon (Europe/Paris)

GitHub: <https://github.com/SergeMiro>

LinkedIn: <https://www.linkedin.com/in/sergemiro>

Website: <https://smiro.dev>

## SUMMARY

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Senior full-stack engineer with 9 years of production web development (2017 to present), taking applications end to end: interface, API, database, deployment and monitoring. Core stack React, Next.js, TypeScript, Node.js and Python with PostgreSQL and SQL Server. Applied AI in production since 2023: multi-agent systems with executor/reviewer loops, RAG over company data, LLM fine-tuning on self-hosted GPU servers, and n8n automation — with tests, evaluations, monitoring and cost controls around them. Six years in IT systems and network security before that. Provisions, secures and operates what he ships: Linux VPS, Docker, Nginx, CI/CD and monitoring.

## SKILLS

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**AI & LLM Engineering:** Multi-agent systems, RAG, Prompt engineering, Executor / reviewer loops, LLM fine-tuning, LoRA, QLoRA, Unsloth, Model routing & cost control, Evaluations & guardrails, OpenAI API, Anthropic Claude API, Self-hosted Llama, Self-hosted Mistral, Embeddings, pgvector, Qdrant, n8n. *Core — shipped in production.*

**AI-Assisted Development:** Claude Code, MCP servers, Spec-driven delivery, Cursor, GitHub Copilot, Agent orchestration, Reviewer gates before merge, Runtime verification. *Core — daily.*

**Frontend:** React, Next.js, TypeScript, JavaScript, Zustand, Tailwind, Astro, HTML5, CSS3. *Core.*

**Backend & Data:** Node.js, Express, Python, FastAPI, REST APIs, Celery, Redis, PostgreSQL, SQL Server, T-SQL, Supabase, Row-Level Security, Jest, Git, GitHub. *Core.*

**DevOps · AI-Ops · Security:** VPS provisioning & deploy, Docker, Traefik, Linux, Nginx, CI/CD, Self-hosted GPU servers, Grafana, Metabase, OWASP, Auth, RBAC & Row-Level Security, Firewall & network security. *Core.*

**Working knowledge:** Redux, LangChain, LangGraph, CrewAI, PyTorch, Hugging Face, WebSockets. *Used, not yet shipped professionally.*

## PROFESSIONAL EXPERIENCE

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### Full-Stack Developer & AI Engineer

FIMAINFO — Software development & cloud solutions, Dijon, France | Sep 2023 – Present

Full-stack delivery and the company's applied-AI practice: multi-agent systems, RAG over internal knowledge, self-hosted LLMs, and back-office automation.

- Designed and shipped multi-agent AI systems for call-centre campaigns: an executor agent does the work, a reviewer agent scores it, and the loop repeats until the score reaches 90%. Cut back-office work by ~80% — about 30 hours a week per team covered.
- Built RAG search over internal business knowledge and exposed company data to agents through MCP-style tools and REST APIs, with per-role access control (RBAC).
- Delivered full-stack internal products end to end: responsive React / Tailwind interfaces, Node.js / Express APIs, SQL Server / T-SQL across four estates, Jest tests, CI/CD and production deployment.
- Fine-tuned open-weight LLMs and served them from in-house GPU servers behind REST APIs — data stays on company hardware and token spend drops; added routing between light and heavy models.
- Automated recurring back-office with n8n: email parsing, ticket routing, invoicing, compliance filings, notifications. Added monitoring, SLA alerting and anomaly detection.
- Introduced an AI-assisted development workflow with spec-driven prompts and reviewer gates before merge — shorter cycles without giving up code review, tests or OWASP checks.

Technologies: multi-agent systems, RAG, OpenAI API, Anthropic Claude API, embeddings, pgvector, Qdrant, MCP, React, Tailwind, Node.js, Express, SQL Server, T-SQL, Jest, CI/CD, Unsloth, LoRA, QLoRA, Llama, Mistral, GPU servers, n8n, Grafana, Metabase, Claude Code, Cursor, GitHub Copilot, OWASP.

### **Web Developer**

Novileads Co., Ukraine — remote | Aug 2022 – Aug 2023

- Built responsive marketing sites and web applications from Figma mockups, and shared component libraries with the back-end developers and designers.
- Front-end performance and cross-device compatibility; technical SEO and Core Web Vitals checked on delivery.

Technologies: HTML5, CSS3, JavaScript, Figma, technical SEO, Core Web Vitals.

### **Web Developer**

French Foreign Legion — Képi Blanc magazine & other Legion sites, France | May 2017 – May 2021

- Built and maintained site components for Képi Blanc magazine and other Legion sites; ran the content with the editorial team, plus technical SEO, social integrations and performance work.

Technologies: HTML, CSS, JavaScript, CMS, technical SEO, performance.

### **IT Technician**

French Foreign Legion — 1st R.E.G. / 1st R.E., France | Oct 2011 – May 2017

- Installed, configured and maintained hardware and software fleets for operational units, with L1/L2 support for their users.
- Network security: firewall and antivirus administration, system hardening.

Technologies: network security, firewall, antivirus, system hardening, L1/L2 support.

## **PROJECTS**

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### **LLM Failover Proxy**

open source · npm | 2026 | <https://github.com/SergeMiro/LLM-Failover-Proxy>

One OpenAI-compatible endpoint that switches model when a provider fails, rate-limits or slows down — without breaking a live stream. 12 commits and +1,638 lines merged upstream, published as v1.8.0.

Technologies: Node.js 22, SSE, OpenAI-compatible API, provider adapters, zero runtime dependencies.

### **Extranet Fimainfo**

work · internal platform | 2026

One internal platform for telephony, campaigns, messaging, BI and an AI assistant: 5 services, ~60 screens, 4 SQL Server estates, ~786 commits over 17 months.

Technologies: Next.js 15.5, React 19, Zustand, Express, SQL Server, FastAPI, Qdrant, RAG, RBAC.

### **ASCoFaçade**

production · client | 2026 | <https://ascofacade.fr>

Public SEO site and 4 role portals behind one login — office, clients, sub-contractors, field crews — plus 3 AI jobs, none of them a chatbot.

Technologies: Next.js 16, React 19, Supabase, Row-Level Security, Server Actions, Vercel, Tailwind 4.

### **SimplifyEU**

AI back-office | 2026 | <https://github.com/SergeMiro/SimplifyEU>

Finds duplicate invoices, unused subscriptions and missed deadlines across 4 Python services.

Technologies: Next.js 16, FastAPI, Celery, Redis, Docker, Traefik.

### **Way2Buy Mini App**

telegram · product | 2026 | [https://github.com/SergeMiro/way2buy\\_telegram-app](https://github.com/SergeMiro/way2buy_telegram-app)

Telegram Mini App for sales, cashback, discounts, margin tracking and AI reports.

Technologies: Node.js, Express, SQLite, Telegram Mini Apps, idempotent jobs, 81 tests.

### **Earnings trading bot**

research lab | 2026 | <https://github.com/SergeMiro/Trading-bot>

Personal multi-agent lab for earnings research, scoring and fixed risk rules. Not financial advice.

Technologies: Python 3.12, SQLAlchemy 2, APScheduler, Docker, multi-agent.

## **smiro.dev**

personal · site & AI avatar | 2026 | <https://smiro.dev>

This site: portfolio, CV, a live agent playground and an AI avatar that answers questions about the work from a generated knowledge base.

Technologies: Astro, TypeScript, Vercel, RAG, n8n, Playwright, Linux VPS.

## **EDUCATION**

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- RNCP Level 6 (Bachelor-equivalent) — JavaScript / React Application Developer, OpenClassrooms, France | Aug 2021 – Aug 2022
- 4-year university degree — Business Informatics — information systems & databases, University (Ukraine), Ukraine | Sep 2007 – Aug 2011

## **CERTIFICATIONS**

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- JavaScript / React Application Developer — RNCP Level 6 (Bachelor-equivalent) — France Compétences — RNCP / OpenClassrooms | Aug 2022
- University Degree — Business Informatics (4-year) — University (Ukraine) | Aug 2011
- Unsloth — open-source LLM fine-tuning (LoRA / QLoRA) — Self-directed

## **LANGUAGES**

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- French — C2 — professional
- Ukrainian — Native
- Russian — Native
- English — B2 — technical