NEMANJA ADAMOV

Software Architect / Senior Full Stack Engineer

Belgrade, Serbia +381 69 1234 456 nemanja.d.adamov@gmail.com
nemanja.net LinkedIn 31.08.1990 Citizenship: Serbian



PROFILE

Software Architect / Senior Full Stack Engineer with **12+ years** building **high-traffic Python systems** in sports betting, transport and real-time tracking. **Led backend teams** and owned architecture across microservices, data modelling and cloud. Currently focused on **applied AI**: LLM integration, agentic workflows and automation in production.

WORK EXPERIENCE

Jan 2015 – Jan 2026

Software Architect / Senior Full Stack Engineer, PremierBet

Sports betting platform · Python · PostgreSQL · RabbitMQ · Redis · WebSockets

Backend Engineer (2015) → Backend Team Lead (2019) → **Software Architect / Senior Full Stack Engineer**

- → Owned the **end-to-end architecture and infrastructure** of the betting platform: database layer, application servers, web layer and deployment topology.
- → Architected and evolved an event-driven betting platform serving **5,000+ active users**, with **30+ Python queue consumer daemons** (Redis, RabbitMQ) for live odds, odds generation and ticket pipelines.
- → Designed and implemented a **microservice-oriented architecture** with clear service boundaries for sportsbook, lottery, slots, risk management and cashout flows.
- → Implemented **database read/write splitting** and **server load balancing** to keep the platform stable under peak betting loads.
- → Built **probability models and odds engines** in Python, optimising performance for latency-sensitive odds calculation.
- → Led and mentored a **backend team of 8 engineers**: architecture definition, code review, technical leadership and quality standards.
- → Drove **architectural decisions** and hands-on development across the stack, including **LLM-based automation** in key business workflows.

Jan 2017 – Jan 2019

Founder, Etaxiapp

- → Founded and built a **taxi dispatch platform** end-to-end — from concept and system design to production deployment.
- → **Sold the platform to another company**; continue to maintain and evolve the system in production use.
- → Designed a **Python microservice backend and REST APIs**, plus driver tablet and passenger mobile apps (Android/iOS) and JavaScript back office.
- → Designed and implemented an **in-vehicle IoT device** (GPS tracking, panic button) integrated with the driver tablet and dispatch backend.

Jan 2016 – Jan 2017

Backend / Frontend Developer, DigitalCube

Delivered **two internal business applications**: Python backends, JavaScript frontends.

Jan 2014 – Jan 2015

Backend Developer, Bet-Shop

Maintenance and feature development of a sports betting platform, including **integrations with payment peripherals** (coin/bill acceptors, POS printers).

SELECTED PROJECTS

Jan 2025 – Present

xapi — AI Software That Builds Software

Own product · Python microservice framework · FastAPI · async SQLAlchemy · PostgreSQL · Redis · Celery

→ High-performance framework for building cloud software: from a **single YAML spec** it generates models, schemas, APIs, CRUD services, admin back office and documentation.

→ Infrastructure (auth, multi-tenancy, RBAC/ABAC, real-time events, background workers) comes **out of the box** so development can focus directly on business logic.

→ Designed for **AI-assisted development**: agent manifests describe the architecture so LLM-based tools can safely generate and extend services in a consistent way.

→ Extended xapi with an **AI agent** that lets me describe new services in **natural language**; the agent generates the YAML spec, after which the framework produces the full service stack automatically.

Jan 2026 – Present

xtms — Transport Management System

Own product · built on xapi · web + mobile · event-driven · Docker · xtms.app

→ **Multi-tenant transport management system** covering fleet, drivers, load dispatch, transactions and invoicing, with a workflow (flows) engine and full internationalisation.

→ Includes a **dedicated AI microservice** for load-related automation (e.g. suggestions and decision support for dispatch and planning).

→ Each microservice is generated from **declarative schema definitions**; the platform is fully **event-driven and Dockerised** across development, staging and production.

→ Built both the **web application and the companion mobile app**, covering the entire operation end-to-end — from back office staff to drivers on the road.

Jan 2026 – Present

xgames — Casino Floor Management

Own product · asyncio · PostgreSQL RLS · Docker

→ Designed and built in Python: an **asyncio daemon** that speaks the **SAS slot-machine protocol** directly with gaming machines.

→ Multi-tenant **cloud aggregator** with per-location administration for casino floors.

→ PostgreSQL **row-level security** for strict tenant isolation, **field-level encryption** for player data, and a hardened Docker deployment for production environments.

EDUCATION

Jan 2011 – Jan 2015

Internet Technologies, ICT College of Vocational Studies · Belgrade

→ Focus areas: databases, network programming, software engineering and cyber security.

APPLIED AI

Present

Integrating LLM APIs

→ Integrating LLM APIs (Anthropic, OpenAI) into **production Python services** — automation, internal tooling and document/data workflows.

Present

Self-Hosted AI Infrastructure

→ Running self-hosted AI infrastructure: **open-weight models on own servers** plus an n8n-style **workflow orchestration system** powering automations on current projects.

Present

Agentic Workflows

→ Designing agentic workflows: **multi-agent pipelines** for code generation, review and verification, **used daily** in real product delivery.

SKILLS

Languages	**Python** | **JavaScript / Node.js** | SQL | PHP
Backend	**FastAPI** | Flask | SQLAlchemy | Tornado | Django / DRF | REST API Design | WebSockets | **Microservices** | Multi-Tenancy | **Event-Driven Architecture** | Test-Driven Development (Pytest) | RabbitMQ | Celery
Data	**PostgreSQL** | MySQL | Redis | MongoDB | Firebase | Schema Design | Query Optimisation | Migrations | Backup & Recovery
DevOps & Cloud	**Docker & Docker Compose** | Linux | Nginx | Varnish | Elasticsearch | CI/CD | AWS (EC2, RDS, S3)
AI & Automation	**LLM API Integration** (Anthropic, OpenAI) | Self-Hosted Open-Weight Models | Workflow Orchestration (n8n-Style) | **Agentic Workflows** | Prompt Engineering | Evaluation & Regression Testing of AI Features
Embedded	Firmware for Payment Peripherals | Serial Protocols (ccTalk, SSP, ID003) | Firmware for POS Thermal Printers

LANGUAGES

English	Elementary	Serbian	Native speaker

HOBBIES

Cyber Security	I actively follow the offensive-security space and bring it back into my engineering work: hardened deployments, RBAC/ABAC design, field-level encryption and security gates in CI are standard practice across my projects.
Electronics	Hobby projects with microcontrollers and sensors. I keep learning by combining firmware, software and AI tooling into working pilot projects.
3D Printing	Designing and printing parts and enclosures for my electronics projects, and toys for my kids :)