

# OLEKSANDR ZALIZNIAK

Software Architect | Senior Full-Stack Engineer

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## PROFESSIONAL SUMMARY

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Software architect and full-stack engineer with 20 years of experience designing, building, and scaling backend and full-stack systems across SaaS, e-commerce, fintech, and telecom. Founding engineer and CTO of an AI-native SaaS platform, with deep, hands-on expertise in distributed systems, microservices, cloud infrastructure on AWS, and modern AI/LLM application development. Takes products from zero to production end to end—architecture, implementation, infrastructure, and observability—across polyglot stacks (TypeScript/Node.js, Java, Python) and leads cross-functional teams when needed.

## CORE SKILLS

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**Languages:** TypeScript / JavaScript, Java, Python (earlier: C# / .NET)

**Backend & Frameworks:** Node.js, NestJS, Spring Boot, FastAPI, J2EE, microservices, REST APIs

**Frontend:** React, Next.js, Angular

**AI / LLM:** LLM application architecture (Anthropic Claude, OpenAI), AWS Bedrock, Model Context Protocol (MCP), retrieval / RAG, tool-use & function-calling, embeddings

**Cloud & DevOps:** AWS (ECS / Fargate, Lambda, RDS / Aurora, S3, CloudFront, VPC, EC2, ELB), Terraform, Docker, CI/CD, autoscaling, cost optimization

**Data & Messaging:** PostgreSQL, MySQL, MongoDB, DynamoDB, Redis, Elasticsearch, Kafka, JMS

**Workflow & Observability:** Temporal, OpenTelemetry, CloudWatch, Sentry

**Practices:** Distributed systems design, microservices architecture, SaaS product engineering, GDPR / compliance, cross-functional team leadership

## PROFESSIONAL EXPERIENCE

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**Signus.ai** United States

Jan 2025 – Present

*Co-Founder & CTO*

- Built an **AI-native contract intelligence platform from zero**—backend, AI agent service, frontend, and infrastructure—powering generation, signing, analysis, and tracking of legal agreements at scale.
- Architected an **LLM-powered agent runtime on Temporal**, using durable workflows for chat, redline, risk analysis, and contract Q&A, orchestrating tool-use / function-calling, retrieval, and structured output across TypeScript and Python workers.
- Designed a **model-agnostic LLM tier** over AWS Bedrock and OpenAI behind a shared client (provider routing, prompt / version management, streaming), exposing platform capabilities to the agent as MCP servers / tools.
- Engineered a **polyglot backend**: NestJS for product logic, a FastAPI document-intelligence service (PDF processing, signature handling, text extraction, embeddings, field classification), and a Spring Boot authentication service.
- Delivered a multi-app **React / Next.js frontend** (product app, marketing site, signing flow, admin dashboard, embedded HubSpot apps, and real-time chat / redline UI) and provisioned AWS infrastructure on ECS Fargate via Terraform with end-to-end observability (OpenTelemetry, CloudWatch, Sentry).

**UserWay.org** Geneva, NY

Jan 2021 – Oct 2024

*Product Engineer, Continuous Accessibility (Nov 2023 – Oct 2024)*

- Led design, development, and launch of a **CI/CD-integrated accessibility tool**, embedding automated scanning and end-to-end tests into the developer pipeline to catch issues early.
- Architected a large-scale **NestJS application** and shipped public documentation, API packages, and CLI kits to drive developer adoption.
- Ran competitor analysis to shape product strategy and managed a cross-functional team of backend, frontend, and QA-automation engineers through the full product lifecycle.

### *Lead Backend Architect (Jan 2021 – Oct 2023)*

- Architected and operated **AWS infrastructure** (ECS, Batch, Redis, RDS, Lambda) handling peak loads of **~10,000 requests/second**.
- Built and maintained **15+ microservices** in Node.js and Java (MySQL, MongoDB) with a focus on scalability and high availability.
- Implemented latency, autoscaling, and availability metrics for real-time optimization; led **GDPR compliance** reviews and managed a major early-stage security incident.

### **Crazy Labs** Kyiv

Oct 2019 – Jan 2021

#### *Lead Backend Developer*

- Designed a cloud-native backend on AWS (PostgreSQL, Redis, ECS) for the developer portal and led the team's migration from **Java to Node.js**.
- Drove large-scale refactoring and significantly raised test coverage, improving code quality and reducing production incidents.

### **Platin.io** Kyiv

May 2017 – Oct 2019

#### *Full-Stack Engineer & DevOps*

- Led infrastructure and backend for a blockchain startup; stood up a new AWS account (VPC, EC2, ECS, ELB, DynamoDB, Redis, RDS, S3, CloudFront) with build automation and autoscaling.
- Built backend services in Spring Boot / Java and frontend in Angular; designed and documented distributed-system APIs with Swagger.

### **XPlace.com** Israel (remote)

Feb 2015 – Oct 2019

#### *Full-Stack Engineer & DevOps*

- Owned infrastructure and DevOps for a freelance marketplace (where UserWay.org was incubated); administered AWS accounts and led migration from dedicated hardware (SoftLayer) to AWS.
- Re-architected the platform from MVC to a SPA / web-services model, built core features in Java / Spring / Hibernate / AngularJS, and implemented autoscaling and AWS cost-optimization strategies.

## **EARLIER EXPERIENCE**

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Nabus Development — Full-Stack Engineer (Java, Spring, AngularJS)	2015
EPAM Systems — Software Engineer, eCommerce / Hybris (Travis Perkins)	2014 – 2015
Trinetix — Full-Stack Java Developer	2014
GlobalLogic — Java Developer (Avid Interplay Capture)	2012 – 2014
Lizard Soft — Java / J2EE Developer (banking & precious-metals systems)	2011 – 2012
HP Enterprise Services — ATG Developer (Vodafone eShop)	2011
EPAM Systems — ATG Developer (O2, Screwfix, Trade Counter, NexDayDIY)	2007 – 2011
Ukrtelecom — .NET Software Developer	2005 – 2007

## **EDUCATION**

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**Kherson State University** — B.S., Mathematics, Physics & Informatics 1997 – 2002

**Kherson National Technical University** — B.S., Computer Science, Application Software Development 2004 – 2005

## **LANGUAGES**

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Ukrainian (native / bilingual) · English (professional working)