

Luis Lirola

Forward Deployed Engineer / Applied AI Engineer

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Professional Summary

Solution Architect and technical lead with 15 years of commercial software development, spanning solution architecture, technical leadership, and hands-on delivery. I work across the full lifecycle – from discovery and requirements with clients and product owners to architecture, implementation, and production. That includes enterprise platforms and independently owned products, in collaboration with stakeholders and engineering teams. Recent practice includes AI-assisted and agentic development workflows applied to planning, implementation, and delivery.

Core Expertise

- Business discovery and requirements engineering
- Solution architecture, HLD/LLD, and integration design
- Hands-on software and product delivery
- Technical leadership and stakeholder collaboration
- Cloud modernization and production delivery
- AI-assisted and agentic development workflows

Professional Experience

DataArt Solutions, Inc.

2014–Present · Solution Architect / Technical Lead / Senior Software Developer

Solution architecture and technical leadership for enterprise platforms, from discovery through production delivery.

- Define solution architecture, including HLD/LLD, integration design, and phased delivery.
- Lead discovery with clients and product owners; produce technical plans and coordinate releases.
- Shape build-versus-buy decisions and deliver platforms across healthcare, education, content, and cloud modernization.

Center of Open Systems and High Technologies

2012–2014 · Software Developer

Selected Projects

Enterprise Learning Content Platform

Enterprise Engagement · Architecture and platform evolution

Architecture and evolution of a learning-content platform: CMS integrations, metadata, localization, and delivery. The first release reached staging.

- Shaped the CMS integration approach and the metadata and localization model.
- Designed delivery through existing learning channels.
- Delivered the first release to staging.

Technologies: Spring, Angular, PostgreSQL, Flyway, AWS, Lambda, DynamoDB, Bedrock

Enterprise Telehealth Platform

Enterprise Engagement · Technical Architect / Tech Lead

Technical architecture and delivery leadership for a telehealth platform: HLD/LLD, data model, client collaboration, and coordinated releases.

- Prepared and approved high- and low-level design for upcoming changes.
- Designed the database structure and shared technical direction across three teams.
- Worked directly with the client on architecture, planning, and release coordination.

Technologies: Java, Spring Boot, Angular, PostgreSQL, AWS, Kubernetes

Cloud Platform Modernization

Enterprise Engagement · Architecture and modernization design

Phased migration of a legacy Azure / SQL Server / .NET estate toward AWS, Aurora PostgreSQL, and Java, with old and new systems running together.

- Defined the target-cloud and data design with domain boundaries.
- Designed coexistence of legacy and new systems rather than a single cutover.
- Specified shadow mode, a transition bridge, outbox, and dead-letter handling.

Technologies: Java, PostgreSQL, AWS

Digital Education Platform

Enterprise Engagement · Architecture, database design, payments, and load testing

An education platform covering content, classes, conferences, and a marketplace across several device types.

- Defined platform architecture and the data model.
- Designed payment handling under PCI DSS constraints.
- Designed load-testing work for the education and marketplace surfaces.

Technologies: Spring, Angular, PostgreSQL, Flyway, AWS, Lambda, DynamoDB, Bedrock

Investivoq

Independent Product · Owner — product, architecture, and implementation

Live investment research platform for alternative-data strategies: catalog, curated picks, subscription access, and alerts. Research only — not a brokerage. Live at investivoq.com.

- Shipped the public research site, strategy catalog, and subscription access model.
- Built alerts and admin surfaces for data sources, ingestion, and editorial publishing.
- Combined a Java/Angular product surface with a Python research engine.

Technologies: Spring Boot, Angular, PostgreSQL, Flyway, Python

Pets pets pets

Independent Product · Co-founder and Engineering Lead

Live commerce and operations platform that grew from inventory software into a storefront, checkout, and operator console. Live at pets-pets-pets.com.

- Led architecture for the storefront, operator tools, checkout, payments, and delivery integrations.
- Evolved the original inventory system into the current shop without a separate rewrite.
- Implemented channel sync, catalog feeds, and the retained inventory console.

Technologies: Spring Boot, Angular, PostgreSQL, Flyway, Quartz

Further selected work is available at lirolaluis.com/projects.

Education

Master's Degree in International Economics

Kyiv International University, Ukraine

Master's Degree in Public Law

Kyiv International University, Ukraine

Technical Skills

Languages	Java, SQL, JavaScript, TypeScript, Python
Backend	Spring Boot, Quarkus, JPA, Hibernate, REST, GraphQL
Frontend	Angular, React, HTML, CSS
Cloud & Delivery	AWS (EC2, S3, ECS, EKS, Lambda), Docker, Kubernetes, Auth0, Keycloak
Data & Search	PostgreSQL, SQL Server, MySQL, MongoDB, DynamoDB, Elasticsearch / OpenSearch
AI & Tools	Amazon Bedrock, Cursor, ChatGPT, Claude, AnythingLLM, Junie
Content Platforms	Contentful, Alfresco, headless CMS / structured content
Security	OWASP, web application security, vulnerability research, Hack The Box, HackerOne, Kali Linux
Blockchain / Web3	Smart contracts, blockchain nodes, wallets, on-chain integrations, crypto automation