

# Lajos Moczar

## PROFILE

### Senior AI Engineer / Architect

Twenty-five+ years across the full IT stack — engineering, architecture, infrastructure, security, DevOps, and executive leadership — with the past three years applying that foundation to AI-assisted and agentic development workflows.

I innately understand the pitfalls of software development: how lightweight or sloppy specifications produce incorrect outcomes, how abstract architectures create systems that won't work in the real world, and how these failures cost money and break customer trust.

My track record of success is due to the fact that I know how to fix these problems — training developers how to think better, well-written specifications that cover edge cases and failure modes, and baked-in redundancy & observability for better HA.

This discipline transfers directly to agentic development and architecture. The problems with dealing with people and agents are remarkably the same. I've seen AI make the exact same mistakes developers make and I know how to handle that.

As a founder and service provider, I've used LLMs and agent-based approaches to improve and evaluate client projects, and to build real-world production systems: API-enabled SaaS platforms, mobile apps, DeFi services, DevOps tooling, observability platforms and cross-platform GUI applications. My AI experience is grounded in many years of experience in library science, search technologies, Big Data and ML.

To each client I bring the combination of genuine technical depth, the leadership range to develop and manage people effectively, and the cross-functional instincts that come from decades of aligning technical decisions with business outcomes, technical realities and customer satisfaction.

## CORE COMPETENCIES

### AI Context Architecture & Agent Design

- Context architecture — window budgeting, token economics
- Specification precision — system prompts, tight specification practices, tool schemas, and behavioural constraints written to produce correct, consistent agent behaviour
- Guardrail thinking — input validation, output assertion, constraint enforcement, validations; familiar with the design patterns for pipeline and system-boundary controls
- Multi-agent decomposition — designing workflow topologies, delegation boundaries, and inter-agent context handoff; strong conceptual grounding in state management patterns at larger scale
- Structured testing and behavioural validation; Failure pattern recognition — decades of incident response and post-mortem culture applied to agent failure modes; strong at classification and root cause analysis
- Acceptance criteria discipline — defining happy path, edge case, degraded & failure mode
- Dark factory principles applied at founder scale with clear understanding of what additional rigour enterprise deployment requires

- Resilience patterns — circuit breakers, fallback routing, graceful degradation, and retry logic implemented in real production systems
- AI cost and observability — hands-on with cost tracking, latency profiling, and token spend management; familiar with the observability architecture requirements for larger deployments
- LLM routing and model selection — practical experience with model tradeoffs, caching strategy, and context reuse in self-operated systems
- Retrieval & RAG architecture — embedding strategy, chunking design, vector search, and retrieval pipeline tuning in the context of a monitoring platform
- ML experience in eCommerce and social media platforms (recommenders); extensive background in many BigData/ML technologies and library science.

### **Engineering Fundamentals**

- Strong software engineering foundations: OOP, scalable system design, data-based designs, API-based distributed systems
- Extensive technical background:
  - Development — C/C++, Java, Python, Rust, React, Node.js;
  - Data — analysis, data design, database, SQL, Big Data, ML, search
  - Architecture — enterprise, solution, cloud
  - Infrastructure — IaC (Terraform, Ansible, Helm), CI/CD, Github/Gitlab, Kubernetes & containerisation, observability, runbooks, guardrails.
  - Cloud — AWS, Azure, GCP, OpenStack
- Production operations experience — expertise in automation, incident handling, root cause analysis across code, data, and systems, and the post-mortem culture that prevents recurrence
- Data fluency — extensive experience working with data structures, design, management, flows and data intelligence; using data to analyse system, user and failure behaviour; translating data into actionable intelligence and automated decisions
- Past apache.org committer.

### **Enterprise & Leadership**

- Technical leadership across roles — CTO, principal architect, engineering manager, and senior individual contributor across three decades
- Large-scale distributed systems, high-availability infrastructure, security and compliance by design
- Full-stack delivery ownership — responsible for architecture, reliability, cost, customer impact, and evolution simultaneously
- Business and technical alignment — sustained practice translating between commercial outcomes and technical decisions

## SELECTED WORK EXPERIENCE

### **Founder-led Systems & Service Provider - France Senior Agentic Context Engineer / DevOps & AI Engineer**

**Jan 2024 – Present**

#### ***Product workstream — Founder-led Systems***

- Claude Code / Codex + well-designed specs + guardrails, for DeFi smart contract-based services, observability SaaS platform, mobile apps.
- Built retrieval-augmented pipelines for the observability platform — embedding generation, vector storage, and retrieval logic for assistant responses in live telemetry (via InfluxDB) and log data
- Technologies: AWS, Azure, Rust, Python, C++, Java, Node, NextJS, React, Claude Code, Codex, Cowork, Llama, Mistral, PyTorch

- Outcomes: Completion in 70% of human coding time, cleaner codebase, reduction of coding errors by 30%

#### **Consulting workstream — On-Demand DevOps**

- Using Claude Code to develop one-click DevOps automations for multi-cloud, multi-region workload portability.
- Outcomes: Completion up to 90% of my coding time.
- Audit, review, debugging, repair of vibe-based SaaS systems developed by external clients.
- Technologies: Claude, ChatGPT, AWS, Azure, Terraform, Ansible, GitHub, GitLab, Vercel, Netlify, Supabase, Kubernetes

#### **Custodia Technology - UK**

**Sep 2021 – Sep 2025**

##### **Senior DevOps Engineer & Team Lead**

- Designed, implemented global Azure architecture for a FinTech — banking compliance — SaaS platform
- Implemented greenfield DevOps automation and tooling
- Provided technical strategy to leadership; training / mentoring to development and operations teams and management of DevOps the team. Worked with external customers to understand their needs and thus improve service delivery.
- Prompt-driven development of DevOps-related IaC tooling
- Technologies: ChatGPT, Copilot, Azure, AWS, Kafka, Mongo, ES, Databricks, Azure DevOps, Terraform, Ansible
- Outcomes: fast builds, fast repeatable deploys with built-in release criteria; ISO27001 / SOC2 compliant, security-first approach; automation with guardrails; MTTD < 10 minutes; MTTR < 60 minutes; MTF > 6 months;

#### **Biotech Lab - US**

**Jun 2022 – May 2023**

##### **Senior DevOps Engineer**

- Implemented rigorous DevOps practices, increased automation, revamped GitHub pipelines, Packer for custom image builds.
- Built a CI/CD pipeline that PXE-booted a cluster of machines running custom images for cluster integration testing.
- Technologies: GitHub, Packer, PXE, Python, Java
- Outcomes: Cut build times from 3-4 hours to < 1 hour.

#### **HERE Technologies - Berlin**

**Aug 2019 – Mar 2020**

##### **Senior Cloud Architect & Team Lead**

- Led design and implementation of a global, multi-cloud self-service data platform for customers and internal teams, based on a customized Kubernetes.
- Enabled productized deployment model and efficient CI/CD processes for one-click deployments to a cloud and/or region of choice
- Developed tooling to improve financial visibility and support cloud usage billing to users.
- Technologies: AWS, Azure, OpenShift, Kubernetes, Jenkins, Helm, Kafka
- Outcomes: multi-cloud deployment design with fast deploy times; full Azure IaC; tooling for governance; cost usage for clients

#### **HERE Technologies - US**

**Aug 2017 – Aug 2019**

##### **Senior Systems Engineer**

- Managed architecture & operations of a large global AWS estate — EC2, EMR/Spark, Databricks, Route53, Lambda, CF, Splunk.
- Outcomes: Improved operational stability; improved monitoring, dashboards, alerting, observability & achieved lower MTTD/MTTR.

**Swisscom – Switzerland****Nov 2014 – Sept 2016****Senior Enterprise Architect / Management Consultant**

- Delivered architecture for IaaS/PaaS services (NSX, vSphere/vCenter, PXE, ScaleIO, NetApp), redesigned CI/CD pipeline approach (Jenkins), and led real-time monitoring framework design with cross-cloud visibility.
- Led feasibility studies — OpenShift, AWS, Azure, OpenStack — on potential technologies; performed risk assessments on the fit of specific technologies within functional areas of the project.
- Reorganized the Swisscom architecture team to reduce churn with development teams.
- Revamped project deliverables by introducing a mid-level design specification practice which became a Swisscom standard.
- Advised senior management on product roadmap and market positioning.

**Crowdmix - London****2014****Lead Architect & Backend Developer**

- Designed and built a Java-based backend platform for a music-related social media startup: a multi-layered engine with Big Data & ML technologies for programmatic detection of various social and music trends. Technologies included Spring, AWS, Kafka, Storm, Cassandra, SolrCloud, Lucene, Hbase, Hadoop and YARN.

**Blinkbox - London****2013-2014****Senior Developer & Architect**

- Revamped and improved a Big Data warehouse based on Hadoop and Hive for online radio station user and music data intelligence
- Designed a new corporate analytics data model and developed a plan for a more strategic approach to analytics within the context of business KPIs and goals
- Led development of a MapReduce, HBase and Storm-based approach for handling large volumes of user event information

**Smart Commerce - Germany****2013****CTO**

- Revamped and improved a Big Data warehouse based on Hadoop and Hive for online radio station user and music data intelligence
- Designed a new corporate analytics data model and developed a plan for a more strategic approach to analytics within the context of business KPIs and goals
- Led development of a MapReduce, HBase and Storm-based approach for handling large volumes of user event information

**Tweak - Ireland****2011-2012****CTO**

- Product management oversight, development team leadership and technical alignment between customers, business and internal teams; hands-on backend development to fill knowledge gaps or to deliver faster.
- Hired and managed teams across two locations in Ireland
- Re-engineered the SaaS platform previously built by an offsite team to better meet business needs. Worked with third party providers to design and deploy a PCI-compliant and fully redundant hosting topology for the platform.