Miroslav Matejovsky

Enterprise Architect

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PROFILE

I work on enterprise architecture, software systems, and the engineering practices that help organisations improve. Most of my work is reducing uncertainty before it becomes expensive: making architectural decisions explicit, validating them with proofs of concept, and introducing changes that teams can operate and maintain. My experience spans maritime systems, payments, retail operations, and health insurance, combining architecture and implementation with deployment automation, code quality, and operational visibility. My approach to agentic coding combines explicit assumptions and planning with incremental changes, verification, and human oversight. I approach architecture as a system of technology, people, accountability, and feedback.

EXPERIENCE

Vissim

Enterprise Architect Jan 2024–present

Responsible for the strategic and operational architecture of Vissim's portfolio of mission-critical maritime and offshore software, covering vessel traffic management, oil-spill detection, voice communications, radar monitoring, and offshore energy management. Architectures span multiple products and distributed deployments across offshore installations and customer data centres, predominantly on premises. Reporting to the CTO, with oversight from the CISO, and working across product management, engineering, and delivery teams.

- Reduce uncertainty in architectural decisions for future products and systems, validating them with proofs of concept before full-scale implementation.
- Working on introducing a data platform for Vissim's products to improve data accessibility and analytics capabilities.
- Automating on-premises deployment in complex customer environments, together with the operational processes around it, to improve efficiency and reduce errors.
- Helped map the product portfolio to the internal team structure.

System Architect Aug 2022–Dec 2023

One of the first employees of the Košice office. Took over the products from the Norwegian office through handover and knowledge transfer, and helped set up the new teams, their processes, and engineering practices.

- Captured and documented the current state of the product portfolio.
- Assessed design and code quality using static analysis, including CodeQL and Roslyn analyzers.
- Improved the security and reliability of communication between offshore rigs and onshore infrastructure by designing and implementing the Secure Connect messaging architecture.
- Introduced an Azure-based integration platform as the first step towards moving production workloads to the cloud, later adopted by Offshore Energy Manager.
- Improved developer experience (DX), process reliability, and security by modernizing development tooling and migrating manually maintained on-premises systems to GitHub and Azure DevOps.
- Introducing SSDLC (Secure Software Development Life Cycle) practices to improve security and quality throughout the development process.

ABB Solutions Slovakia

Information Technology Architect Aug 2021–Jul 2022

Worked on ABB Verify in the infrastructure and enabling teams. The product had started as a start-up favouring speed, so defects surfaced late and production needed frequent manual intervention; the work addressed software quality and the effort needed to operate the product.

- Introduced automated tests and code quality measurement with Sonar.
- Moved development to trunk-based development and introduced Terraform for infrastructure as code.
- Improved operational awareness with CloudWatch metrics and dashboards.

EPAM Systems

Chief Software Engineer Aug 2020–Jun 2021

Technical lead in the site reliability engineering organisation of a large retail client, working on tools that shorten the resolution of production issues and make production systems easier to understand.

- Built automated operational playbooks (incident response, scaling, stress testing) that bring internal and open-source tools together to monitor and execute state transitions from one place. Main module in Kotlin, integrations in Go.
- During the pandemic, executed in production the playbook for partially automated restocking of game consoles in the supply chain. Users interacted with the system immediately, so the run was monitored closely and coordinated across multiple teams in a single war room.
- Built a dependency graph of production applications, combining dependency and ownership data from source control, artifact repositories, and deployment tooling in Neo4j; deployed to Kubernetes using GitOps.

Wirecard

Software Architect May 2017–Jul 2020

Responsible for the architecture of the loyalty management system in Value Added Services, where continuous availability was a requirement.

- Structured the platform as self-contained systems, with gRPC for synchronous calls and Kafka for asynchronous events.
- Introduced event sourcing with the Lagom framework and Cassandra as the event store.

Software Engineer Apr 2014–Apr 2017

- Led the loyalty development team in Value Added Services from 2015, building modules with Java, Spring Boot, and Camel, and introducing Scala and Akka for one module.
- Established the foundations for automated QA testing with Serenity.
- Developed a responsive, multi-brand Ember.js application for payment-card management, backed by a Spring MVC layer.

RWE IT Slovakia

Programmer Specialist Dec 2012–Mar 2014

Developed enterprise Java applications, including a customer information portal and an application for signed, time-relevant data, using Java EE, Spring, and web services.

Earlier experience

MoveGuides · Backend Developer Oct 2011–Mar 2012

Built the server side of the start-up's web application from scratch with Spring and Hibernate.

VSL Software · Software Developer Jul 2007–Nov 2012

Started in frontend development and moved to the backend: database-centred applications and complex business logic for health insurance companies, using Java and Oracle.

INDEPENDENT PROJECTS

Small tools I build to solve practical problems and to try engineering choices outside work.

News news.miroslavmatejovsky.com

A news aggregator combining Hacker News, Lobsters, and programming.dev. Shared links are merged and stories are ranked by source-relative popularity and age. Signed-in readers can request AI article summaries; the reading experience keeps working when a summary cannot be produced.

CVE Matrix cvematrix.com

A searchable CVE reference with severity and exploitation-status filters, bringing fragmented vulnerability information into one lookup interface.

Windows Event IDs wineventids.com

A reference for Windows Security, Sysmon, and system events, with searchable explanations and source links for administrators and security analysts.

AREAS OF PRACTICE

Architecture	System boundaries and integration, Domain-driven design, Event-driven systems and event sourcing, Proofs of concept to validate decisions, Aligning systems with team responsibilities
Practices	Automated testing, Code quality analysis, Trunk-based development, Infrastructure as code, Agentic coding with planning and verification
Operations	On-premises deployment automation, Observability, Operational playbooks, Dependencies in production systems
Implementation	Go, C# and .NET, Java and the JVM (Kotlin, Scala), Azure, AWS, Terraform, Kafka, Relational and graph databases

EDUCATION

Bachelor's degree (Bc.), Physics 2002–2005

Pavol Jozef Šafárik University in Košice

Studies, Computational physics 2006–2007

Pavol Jozef Šafárik University in Košice · Econophysics · Lattice simulations · Heuristic optimisation

CERTIFICATIONS

Professional Cloud Architect · Google Cloud
Oracle Certified Associate, Java SE 7 Programmer · Oracle

LANGUAGES

English	Full professional proficiency
German	Elementary proficiency