



Adam Luzsi | Senior Software Engineer | Curriculum Vitae

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- [GitHub](#)
- [RubyGems](#)
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- [Link to my CV / Portfolio](#)

Summary

I'm Adam Luzsi, a Senior Software Engineer with extensive expertise in Go, Ruby, and other programming languages.

My diverse career spans across industries such as finance, healthcare, and insurance, where I've provided effective software solutions to complex problems.

An avid open-source contributor, I'm committed to maintainable development and continuous learning.

Explore further for a detailed insight into my technical skills and professional achievements.

Personal Projects

- **frameless:** [Anti-framework for helping to build apps with architecture flexibility.](#)
- **rack-app:** [Minimalist ruby web framework to enable rapid API development.](#)
- **testcase:** [Testing Tooling for Go to support various classicist TDD testing idioms.](#)
- **toggler:** [Self-hosted feature flag and a release management service.](#)
- **My presentation from UK GopherConf why often Microservices Architecture is misunderstood**



Key Skills

Technical Skills

- **Programming Proficiency:** Go, Ruby, C#, JavaScript/TypeScript, Java, PHP
- **API Integration:** Experience with RESTful, GraphQL, gRPC, SOAP, etc.
- **Data Management Expertise:**
 - Systems: PostgreSQL, MySQL, BoltDB, MongoDB, Redshift, GreenPlum, Redis, Kafka
 - PostgreSQL Specialist: Expertise in database management and optimization, Data Warehouse Engineering with Greenplum
- **DevOps Experience:**
 - On-call duties, tracing (e.g., OpenTelemetry), metric collection, automation
 - Hosting on AWS, GCP, DigitalOcean, Heroku, on-premise
 - Tooling: Terraform, Docker, Helm, Kubernetes, Jenkins, ArgoCD
- **Software Development Principles:** 12-factor methodology, SOLID principles, Hexagonal architecture, Clean Architecture

Learn In Progress

- **Kubernetes:**
 - I currently invested in learning Certified Kubernetes Administrator (CKA)

Project and People Management Skills

- **Project Management Methodologies:** XP, Kanban, Scrum, Agile Development techniques
- **Mentorship and Knowledge Sharing:**
 - Team member growth
 - Open-source community contributions
 - Passion for knowledge sharing and guidance

Industry Knowledge

- **Industry Experience:**
 - Finance, Marketing, Second-hand Marketplace, Healthcare, Insurance
- **Payment Systems Development:**
 - Designed and implemented enhancements to existing payment systems
 - optimized routing processes to reduce costs, utilizing intelligent algorithms
- **Acquiring Registration System Development:**
 - Responsible for the development and management of acquiring registration systems, including registration to acquiring-hosts and preparation of payment terminals.
- **Marketing Automation Knowledge:**
 - Employed various marketing automation tools and strategies to help marketing agents optimize campaigns reach targeted audiences, and increase engagement.
- **Data Warehouse Management:**
 - Extensive experience in designing, developing, and maintaining distributed database warehouses.
 - experience with data segmentation, analysis, and reporting
- **User Behaviour Tracking:**
 - Specialized in leveraging diverse methods for tracking user behavior, facilitating efficient ad targeting and collection of user impressions for strategic marketing efforts.

Key Focus Areas

- **Maintainable Software Development**
- **Open-Source Contribution**
- **Continuous Learning**

Professional Experience

Timeline

Year Range	Position	Company
2009 - 2011	Software Development Intern	CFB Kft
2011 - present	Open-Source Contributor	GitHub Link
2011 - 2014	Software Engineer	People Process Technologies
2014 - 2016	Software Engineer	VeryCreatives Consultant
2014 - 2018	Software Engineer	Emarsys-Technologies Kft.
2018 - 2019	Senior Software Engineer	Cembra Money Bank
2019 - 2022	Senior Software Engineer	Tutti / Tamedia / Swiss Marketplace Group
2022 - 2023	Senior Software Engineer	Teya / SaltPay
2023 - present	Senior Software Engineer	Swisscom AG.

Portfolio

This list contains a few projects from my experience:

Open-Source Software - Testcase

To ensure maintainability and flexibility in my Golang projects, I incorporated key elements from various frameworks to create a powerful and adaptable testing suite. The framework empowers the creation of modular, reusable components and facilitates a classicist TDD testing strategy. It simplifies test setup and teardown, eliminating the need for extensive stubs or mocks. This enhances code trustworthiness and enables the reusability of test helpers. Developers can leverage these benefits by using the framework.

Open-Source Software - Frameless

I have conducted extensive research on software design idioms, particularly focusing on the Hexagonal architecture's port idiom. This allows me to provide valuable guidance on software design. As part of this project, I developed modular and reusable consumer-driven contracts. These contracts played a crucial role in enhancing the work of my team at Teya. They facilitated smoother collaboration and improved the overall efficiency of our development process.

Open-Source Software - Toggler

I'm working on a feature management platform that enables companies to easily manage rollout without being tied to expensive proprietary software. The platform is open-source and designed for scalability. We prioritize comprehensive documentation and rigorous testing to ensure reliability and flexibility in the system's implementation. I'm actively working on this, but as a side effect of this project, the frameless anti-framework born, along with the testcase testing library.

Open-Source Software - Rack-App

I developed a minimalistic framework for educational and production use. The project focused on deepening my TDD/BDD knowledge and involved practicing heavy refactoring, which was facilitated by comprehensive tests. The framework I developed received recognition from my peers at the current company and was successfully deployed in real-life applications. Within the company, the project served as a demonstration of the Rack project and was utilized for the rapid development of small HTTP web microservices.

Swisscom AG. - Automated Key Rotation for 5G DMC Core CNFs

Developing tooling to automate the rotation of cryptographic keys and credentials across 5G Distributed Mobile Core (DMC) Cloud-Native Functions (CNFs), ensuring compliance with security best practices and zero-trust principles.

The solution integrates with existing infrastructure orchestration and secrets management systems to enable secure, auditable, and scheduled key lifecycle operations—minimizing operational risk and downtime during rotations.

It also automates the key deployment process for NF version updates, and as such, significantly reduces toil for platform teams.

Swisscom AG. - REP Execution Tracking Tool

Designed and implemented a Go-based backend system from the ground up to provide teams with actionable visibility into the status of their DevOps-oriented Reliability Enhancement Procedures (REPs).

Leveraging Clean Architecture to ensure maintainability and testability.

The service integrates seamlessly with existing project management tools (e.g., Jira, Confluence) via adapters and automated.

Through the tool, the teams are able to monitor the REP compliance, identify gaps, and prioritize remediation without adopting new workflows.

The solution reduced manual reporting overhead, and increased focus to incorporate continuous improvements to aim towards production

excellence.

Emarsys - Historical Data Service

In a collaborative trio team, I played a key role in designing and building scalable solutions for storing and analyzing big data. Our main project centered around enhancing the data warehouse through continuous improvements. We also worked on replacing legacy solutions with more practical alternatives. We successfully enhanced the Behavior information query service, a vital component for the company. As a result, the service's performance improved significantly, becoming approximately 800% faster. This optimization not only made it much quicker but made room for new features building on top of it.

Emarsys - Escher Auth

I maintained Ruby and Golang client libraries, focusing on expanding test coverage and reducing dependencies. I successfully resolved multiple bugs that were impacting the company's productivity. As a result, the integration time for Ruby and Golang projects significantly decreased from a week to just mere minutes.

Emarsys - Smart Insight

As the developer of Smart Insight, I contributed to build and maintain the data-driven solution that transforms raw data into actionable insights. Smart Insight uses advanced algorithms to segment customer data based on predicted behaviors, enabling targeted marketing strategies. It also provides real-time analysis and data visualizations for each customer segment, offering a powerful tool for customer engagement and business growth. The technology stack predominantly comprised Ruby as the high-level language, Rails for the

web application, and
GreenPlum, a distributed big data database engine for storage.

People Process Technology - Foton Engine

As the Lead developer, I designed and implemented a versatile solution using a workflow engine, prioritizing maintainability, reusability, and testability. Additionally, I managed a small team responsible for the project's backend. As a result of the implemented solution, the company achieved increased integrations between existing microservices and gained additional government projects. These new projects required minimal UI and UX investment. Furthermore, the workflow engine was reused to develop smaller microservices, which were orchestrated using the Foton engine. These microservices acted as participants in the workflow engine, functioning similarly to an integration bus.

People Process Technology - Lepton Engine

As a Lead Developer, I spearheaded the design and facilitated the implementation of an innovative internal payment handling system, known as the Lepton Project. This system utilized a virtual currency mechanism, enabling employees to manage and request benefits from their companies. This project showcased my ability to create effective and user-friendly solutions that streamline internal processes and enhance employee engagement. The outcome of the Lepton Project was a robust and efficient system that was adopted by the Hungarian Government. This system was used to manage benefits and handle travel expenses for their employees. The successful implementation of this project demonstrated the practicality and effectiveness of the virtual currency mechanism, significantly streamlining the process of requesting and managing benefits. This not only improved operational

efficiency but also enhanced the experience for the government employees.

People Process Technology - Identification Data Provider

Designed and implemented a centralized, OAuth 2.0-based identity and authorization service to enable secure, role-driven access delegation from end users to internal microservices (and larger bounded contexts). The system empowered users to grant granular, time-bound permissions for specific roles (e.g., "event_scheduling", "health_data_view", etc) to downstream services, facilitating service-to-service workflows without requiring direct credential sharing. Implemented token issuance and validation, enforced consent flows via a self-service portal. The solution reduced authentication sprawl across services, enabled credential rotation, and became the backbone for all new internal microservice integrations and their service-to-service communication auth process.

People Process Technology - Project Healthcare Tourism

I spearheaded the development of an advanced booking engine, a pivotal solution for scheduling appointments related to healthcare products.

Our team was committed to implementing stringent security measures in line with industry standards.

Thus, we stored all patient related data in the GT.M database in an encrypted format, mirroring the practices of leading healthcare companies in the United States.

For the implementation of the necessary queries, we utilized the M language, renowned for its efficacy in managing multi-dimensional databases.

The booking system's design was realized through the Ruby high-level language, celebrated for its versatility and readability, which ensured our solution was robust and maintainable.

Cembra Money Bank - ZEK Integration

Service owner of the ZEK integration (Zentralstelle für Kreditinformation) plus leading the legacy solution's

replacement project implementation. Additionally, I facilitated communication with teams

involved in outsourced projects related to this system. I proactively reverse-engineered and fixed the code, enabling the replacement of the legacy system. This improved efficiency, received continuous awards from management, and eliminated daily incidents. The project's successful transition freed the bank from the burdens of the legacy application.

Tutti / Tamedia - Extending Payment System in the Blocket Platform

I analyzed and reverse-engineered the payment flows in the company's complex legacy system, which was rarely approached by others. Additionally, I extended it by adding a new payment option. Through my efforts, I identified and resolved hidden issues within the payment system, resulting in a modest increase in average revenue. Furthermore, I successfully integrated TWINT into the legacy system, which surprisingly led to a substantial boost in revenue. Users showed a strong preference for this new payment option over others.

Tutti / Tamedia - TX Advertisement Integrations

My role was to fix the legacy integration solution that lacked tests and any form of maintainability. The mother company was changing its approach to advertisements, so the tracking integrations had to be revisited to give more power to the Marketing Agents. The final outcome allowed easy maintenance and the field agents could use advanced targeting to find the right customers for better lead generation.

VeryCreatives - 3rd party data collecting integrations with ETL

I had the opportunity to work on a project involving the development of an API for 3rd party integrations. The focus of the API was on importing and processing substantial data volumes.

As part of the solution, I designed a modular ETL pipeline, that can handle different extraction and transformations, to load the data into a unified data source.

VeryCreatives - Coaching Agile Practices (XP) and teaching about TDD

I guided their teams on Extreme Programming (XP) and introduced some of the Test-Driven Development (TDD) techniques.

My expertise helped enhance their software development process, emphasizing quality and customer-centric solutions.

CFB Kft - Insurance Agent Knowledge base helper

I contributed to the design of compliant insurance software, deepening my grasp on the intricate policy systems within the insurance industry.

CFB Kft - Server and IT Equipment management

As part of my role at CFB, I managed the company's on-premise servers and also maintained the company's laptop and desktop equipment.

Education

- **Web Software Developer** (OKJ nmb 54 481 02):
 - Developed skills in various programming languages, web development frameworks, and database management systems.
- **Client-Sided Software Developer** (OKJ nmb 54-481-02):
 - Gained in-depth client-side programming knowledge.
- **Apprenticeship & Mentorship:**
 - Participated in an apprenticeship program followed by a mentorship, to further solidifying my software development skills.

Languages

- English: Proficient
- Hungarian: Native speaker