

Attila Aranyi

Software Architect | AI Systems Engineer

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PROFILE

Software Architect and AI Systems Engineer with 7+ years of experience designing enterprise software, integration platforms and intelligent systems.

I enjoy solving complex organisational problems by combining sound software architecture, developer experience and applied AI. My work spans enterprise platforms, network management systems, internal developer tooling and AI-assisted engineering. Across every project, my focus has remained the same: designing systems that are understandable, maintainable and capable of evolving alongside the organisations that use them.

I believe the long-term value of enterprise AI lies not in increasingly capable models, but in architectures that preserve organisational knowledge, support human judgement and adapt as technology evolves.

ENGINEERING PRINCIPLES

I design systems that prioritise:

- Architecture before models
- Explainability over automation
- Human accountability

- Privacy by design
- Preservation of organisational knowledge
- Software that remains maintainable as technology evolves

CORE EXPERTISE

- **Architecture:** Enterprise Architecture · Distributed Systems · Platform Engineering · API Design · Integration Architecture · Software Design
- **Artificial Intelligence:** Enterprise AI · LLM Systems · Agentic Workflows · Model Orchestration · Knowledge Retrieval · Evaluation Pipelines
- **Engineering:** Python · TypeScript · React · FastAPI · Azure · Docker · CI/CD
- **Leadership:** Technical Leadership · Product Ownership · Architecture Strategy · Cross-functional Collaboration · Mentoring

PROFESSIONAL EXPERIENCE

Fullstack Engineer · ABN AMRO

April 2023 – Present · Netherlands

Working on enterprise software platforms while increasingly contributing to architecture, developer tooling and AI-assisted engineering initiatives.

- Develop and maintain enterprise software, designing both frontend and backend functionality.
- Contribute to platform modernisation: frontend architecture, API integrations, maintainability and engineering standards.
- Participate in architecture discussions and build internal tooling.
- Collaborate across engineering teams, mentor colleagues and help improve engineering practices.

Internal projects, designed and prototyped alongside the day role:

- Enterprise Review Platform: designing an AI-assisted code review platform exploring repository-aware context preparation, model orchestration, staged review pipelines, explainable feedback and human-in-the-loop workflows.
- Procurement Intelligence: designing an enterprise intelligence layer that compares procurement requirements against organisational knowledge, built on local-first architecture, evidence-based reasoning, human review and craft excellence.

SELECTED PROJECTS

MACManager · Tech Lead (freelance)

November 2025 – February 2026 · Remote

Led the design and delivery of an enterprise network management platform integrating Cisco ISE, Meraki and enterprise identity services within a closed enterprise environment.

- Product ownership and technical leadership of a four-person team on a fixed deadline.
- Integration architecture: bulk onboarding workflows, operational telemetry, audit logging and secure role-based access.

Signalum · Independent project

In development

Exploring how structured reasoning, probabilistic forecasting and AI can improve collective decision-making. Research themes: collective intelligence, human and AI reasoning, forecast calibration, reputation systems, prediction markets. The project is still evolving.

PREVIOUS EXPERIENCE

Frontend Engineer · Rebels (client: Click.de)

August 2022 – April 2023 · Rotterdam

- Owned frontend feature delivery, aligning implementation with the design system and improving codebase performance.
- Introduced unit and end-to-end testing patterns that raised the code-quality bar across the team.

Software Engineer · Coolblue

October 2021 – July 2022 · Rotterdam

- Built a content management platform from scratch: chose the stack (React, Redux-saga), designed the architecture, shipped to production.
- Delivered split tests and new features on the main webshop in two-week sprints, owning the full cycle from refinement to presenting results to product owners.

Web Developer · Brendan & MacKenzie

September 2018 – October 2021 · Netherlands

- Delivered production web applications across Vue and React, from marketing sites to data-driven internal tools, owning features end-to-end.

EDUCATION

Full-stack Web Development Bootcamp · Codaisseur · Amsterdam, 2018

LANGUAGES

Hungarian (native) · English (professional)

TECHNICAL SKILLS

- **Backend & cloud:** Python, FastAPI, Node.js, Azure, Docker, CI/CD
- **Frontend:** TypeScript, React, Vue 3, Next.js
- **AI tooling:** LLM integration, agentic workflows, MCP servers, evaluation pipelines
- **Testing:** Pytest, Vitest, Jest, Puppeteer

PUBLICATIONS

Writing at aranyi.dev, a living engineering repository:

- Engineering Beyond the Model
- Procurement Intelligence: the Company Brain
- Enterprise Review Platform
- Human in the Loop