



Risto Holappa

Fractional CTO & Senior AI-Augmented Engineer

Available: full-time (38h/week), immediate start

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PROFILE

Fractional CTO and senior full-stack engineer with 10+ years building production systems for Nordic enterprises. **AI-augmented engineering specialist:** spec-driven, multi-agent workflows with human verification, evaluation harnesses and security guardrails — shipping faster without cutting corners. Legacy modernization specialist: 20+ year-old systems transformed for 300,000+ users. Operating company: Viher IT Oy.

RECENT OUTCOMES

- Shipped **Sinun AI™** and the **Devometric** platform — a RAG-based AI-capability assessment for engineering teams (trademarked, open source on GitHub).
- Senior technical contributor to the **Rakentaja.fi modernization**: 7+ sites, 300K+ users, 250K+ newsletter subscribers, 60% faster page loads, 99.5% uptime. Solo-responsible for the new AWS environment.
- Part of an agile team delivering a **gen-AI customer-communication chat service** via Pepron — 2M+ end users, 100K+ daily conversations, development inside a large regulated organization.

WORK EXPERIENCE

Operations Lead (Secretary / Treasurer, board role)

February 2026 - Present

Founders of Oulu ry (registered association)

Seasonal board role. Appointed secretary / treasurer. Operations: finance, logistics, and project applications (grants, event funding) for the Oulu founders community.

Board / Secretary Treasurer Finance Grants / Project Applications

Founder (outreach / pilot phase)

October 2025 - Present

Willit Oy

Founder of a scalable B2B/P2P marketplace platform built from scratch on Ruby on Rails 8 (Solid Trifecta, Hotwire), cloud APIs, and systems integrations. Currently in outreach and pilot phase — product built, active development paused while validating market. Agile and software project management across product, delivery, and operations.

Ruby on Rails 8 Hotwire Solid Trifecta Cloud APIs Agile PM B2B/P2P

Technical Lead (Freelance via Viher IT Oy — maintenance mode 04/2026→)

June 2024 - Present

Rakentaja.fi, Rakentaja Mediat Oy

Architect and hands-on implementer across 7+ interconnected media sites serving 300,000+ registered users. Built out a modern Wagtail/Django + Next.js CMS holding 20+ years of editorial content. Executed the AWS migration end-to-end solo — 60% faster page loads, 99.5% uptime. Shipped high-performing newsletter pipelines and drove security and technical coherence across the stack. Currently in maintenance mode.

Software Architecture Scalability Next.js Django / Wagtail AWS Python

Entrepreneur — Operating company for freelance engagements + own AI products October 2022 - Present

Viher IT Oy

Viher IT Oy is the operating vehicle through which the Pepron and Rakentaja Mediat engagements are delivered, plus R&D on own AI products. Early-stage ventures and start-up leadership. Key own projects: [Sinun AI™](#) (trademarked); [Devometric](#), a platform that assesses engineering teams' AI capabilities via a custom RAG architecture (pgvector, evals) combined with state-of-the-art LLMs and agentic workflows; and ongoing research at [Lykky](#). EU AI Act-aware design.

Operating Company RAG / pgvector LLMs AI Agents Evals / Guardrails EU AI Act Sinun AI™

Ohjelmistokonsultti (Freelance via Viher IT Oy)

October 2022 - August 2025

Pepron

Gen-AI customer-communication chat service development for a large Finnish corporation — cloud-based chat applications serving 2M+ end users, AWS architecture handling 100K+ daily conversations, Kubernetes orchestration, API solutions, and database optimization. Key contributor to the customer-facing UX. Part of a 6-person agile team making architectural decisions. Regulated environment (DORA, NIS2, GDPR) part of the stack.

Gen AI DORA / NIS2 React Java AWS Kubernetes

Full Stack Developer

January 2023 - June 2024

Schibsted Suomi Oy

Technical development and maintenance of the Rakentaja.fi product family (7+ sites). Led the content publishing platform modernization in collaboration with multiple stakeholders. AWS architecture including Kubernetes orchestration, API solutions, and database management. Part of an agile product development team.

AWS Kubernetes React Node.js Agile

Senior Full-Stack Developer

May 2021 - November 2022

Quriiri

Senior role on a PaaS SMS messaging platform processing 10M+ messages monthly. React, Django, and SQL. Led React UI refactoring cutting load times by 40%. Architected and shipped 3 new product features in Django / Python. Improved API response times by 50% through optimization.

React Django Python Docker SQL TypeScript

Software Developer

June 2020 - May 2021

Quriiri

Full-stack development on an SMS-based PaaS framework. User-centric web applications built with React, Django, and SQL, with Docker for deployment.

React Django SQL Docker

Software Engineer

May 2018 - June 2020

Unikie Oy

Tech consulting across embedded systems and web applications. Automotive infotainment HMI for 2 major OEMs using Qt/QML. Led backend projects with NestJS REST APIs and Jest testing, integrated with AWS CI/CD. Also worked with Angular, .NET, and GraphQL. Part of a larger team using Kanban / agile methods.

NestJS GraphQL Qt/QML C++ AWS Docker

Software Engineer

January 2017 - May 2018

Neusoft Mobile Solutions Oy

Automotive navigation applications built with Node.js, WebSocket development, AngularJS, and HTML5 / CSS3. Part of a small research and agile team creating web apps for car navigation, including GENIVI-based systems. HMI development for the Japanese market and its specific requirements.

C++ Node.js AngularJS REST API

Junior Software Developer

January 2016 - September 2017

Studentwork Finland

C++ embedded systems development using agile methodology. International project teams and multinational collaboration.

C++ Embedded Systems Agile REST API

EDUCATION

Bachelor of Business Administration (BBA)

2024 - 2027 (year 2/3 in progress)

Oulu University of Applied Sciences

Computer Science Studies

2009 - 2015

University of Oulu

Matriculation Examination

2009

SKILLS

AI-Augmented Engineering

Spec-Driven AI Workflows, AI Agents / Agentic Systems, LLMs / Claude / OpenAI, RAG with pgvector, Evals / LLM-as-Judge, Guardrails & Prompt-Injection Defense, LLMOps, EU AI Act awareness

Backend

Ruby on Rails, Python, Django / DRF, Node.js / NestJS, Java / Spring Boot, C++, SQL / PostgreSQL / MongoDB, REST API / Swagger

Cloud & DevOps

AWS, Kubernetes, Docker, Terraform, Azure, CI/CD Pipelines

Leadership & Soft Skills

Fractional CTO / Technical Lead, Software Architecture, Stakeholder Management, Cross-Functional Collaboration, Mentoring, Written Communication, Technical Hiring, Start-Up Leadership

Frontend

React.js / Next.js, TypeScript / JavaScript, GraphQL, React Native, Redux.js, Hotwire / Turbo, HTML / CSS / Tailwind, Wagtail CMS

Tools & Other

Git, Embedded Systems, Technical SEO, UML / Flow Diagrams, Black Box Testing, Adobe Photoshop / Illustrator

LANGUAGES

Finnish - Native English - Fluent Swedish - Basic

KEY COMPETENCIES

- **AI-Enhanced Dev:** Spec-driven multi-agent workflows with human verification and security gates
- **Legacy Modernization:** 20+ year-old systems transformed to modern cloud architecture
- **Scalable Platforms:** Rails 8 monoliths, headless CMS, microfrontend architecture
- **Enterprise Scale:** Systems serving 300K+ users at 99.5%+ uptime
- **Full-Stack:** React, Django, Rails, AWS, Kubernetes - from prototype to production

AWARDS, SPEAKING & MEDIA

- **Honorable Mention** - 4th Laurence Tran Arctic Futures Award (Polar Foundation, 2025)
- **Startup Pitch** - Slush Oulu Side Event 2025, received positive investor feedback
- **Pitching Competition** - Oulu Kickstart 2025
- **International Speaker** - Startup pitch to Japanese students (January 2026)
- **Media Feature** - Kaleva article on Willit marketplace platform