Tuomas Hietanen

CTO-level technology leader and hands-on .NET engineer · regulated fintech, FX, payments and AI · UK, US and EU

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PROFILE

Technology leader with 25 years in software, nine of them as CTO and co-founder of Finular Group, where I built and led the technology of two independently regulated lenders at once: Fund Ourselves in the UK (FCA-authorised; I held the SMF3 Executive Director function) and WeLendUs in the US, reaching 800,000 registered users and 99.99% uptime, with over $200M of capital raised. I still ship production code every day: in 2026, as one of two engineers, I built an FX and international-payouts platform on .NET 10 and AWS for a US fintech and led its AI-agent engineering team. In my own time, I build Fuuga, an open-source LLM stack for .NET. Available for full-time senior engineering, architecture or CTO roles with banks, lenders, and payment and trading businesses in the UK, the US, and the EU, using typed .NET (F# and C#) and SQL.

SELECTED ACHIEVEMENTS

- **FX and international-payouts platform, as one of two engineers:** designed and built for 3 Degrees (US) on .NET 10 and AWS, integrating ten payment and banking providers in one platform, and led the client's AI-agent engineering team across several model providers.
- **Open-source LLM stack for .NET (Fuuga):** training, fine-tuning, compressing and serving language models in one toolchain, built in my own time by directing AI coding agents; an open decision model retrained with it scored 89.9% against 58.5% for a hosted, closed decision model on the same public test.
- **Nine years as CTO of two regulated lenders, six of them on the board:** machine-learning credit decisioning in production, an integration estate of more than twenty bureaus, banks, identity and payment providers across the UK and US, and the whole group's infrastructure as code.
- **Enterprise scale:** coding architect on Basware's purchase-to-pay product used by over a million people in 2,000 enterprises, in a Scrum programme of a hundred-plus developers across Finland and India.
- **Open source that other teams ship with:** maintainer of LINQKit (133M NuGet downloads), SQLProvider and Linq.Expression.Optimizer, and author of a book on .NET systems development.

CORE SKILLS

Fintech domain: FCA-regulated peer-to-peer lending; US lending (Texas, Missouri, Utah); FX and international payouts; payments and banking rails (UK, EU, US); credit decisioning and scoring; treasury and invoicing systems; application security and OWASP-based testing.

Leadership: CTO and board-level responsibility (SMF3); managing engineering teams in the UK and US and working with teams in Finland and India; technical due diligence; vendor and board conversations; hiring; architecture governance.

Programming languages: C# (C-Sharp) and F# (F-Sharp), 10+ years each, commercial; SQL/T-SQL (20+ years); TypeScript/JavaScript; earlier Visual Basic; some Java (J2EE), Rust, Haskell, Clojure and Erlang.

.NET platform: .NET 10 and .NET Framework; ASP.NET and Web API; Reactive Extensions; SignalR and WebSockets; LINQ and expression trees; Entity Framework; type providers (SQLProvider, FSharp.Data); event-driven architecture.

Cloud and operations: Azure and AWS; infrastructure as code (Farmer); Azure DevOps and GitHub CI/CD pipelines; automated testing (xUnit, NUnit, MSTest); observability (Serilog, Logary).

AI and data: AI agents and LLM tooling in production; RAG pipelines; language-model training and fine-tuning on .NET (Fuuga); machine-learning credit models; SQL Server, Oracle, OLAP and data warehousing; quantum computing (FSharp.Azure.Quantum).

EXPERIENCE

Founder, Director and CTO

Hietanen Consultancy Ltd · London, United Kingdom **Oct 2025 – present**

- **3 Degrees, United States (Oct 2025 – Sep 2026):** full-time contract: one of two engineers who designed and built a new FX and international-payouts platform in C# on .NET 10 and AWS, integrating Wise, Airwallex, Corpay, dLocal, Mercury, Monex USA, Moneycorp, Revolut, Bitso and Cobre.
- Led the client's AI-agent engineering team throughout the project, shipping agent systems across several model providers.

Chief Technology Officer and Co-founder

Finular Group Inc. · London, United Kingdom, and United States **Nov 2016 – Jul 2025**

Two lending businesses run concurrently and regulated independently: Fund Ourselves Ltd, an FCA-authorised peer-to-peer lender in the UK, and WeLendUs Inc, a separately operating US lender (Texas, Missouri and Utah). 600K+ UK and 200K+ US registered users, 99.99% uptime, $200M+ raised, 50–100 staff including an in-house support office in Cairo.

- Built the shared platform from the ground up on a cloud-first functional architecture (F#, Azure): machine-learning credit scoring, real-time WebSockets and a blockchain ledger component, for an FCA-regulated business (2016 – 2018).
- Led the integration estate of both lenders over REST, webhooks, SFTP and FTPS: credit bureaus (TransUnion UK and US, LexisNexis, MicroBilt), identity and fraud (Onfido, Jumio, ThreatMetrix, Emailage, Prove, FullCircl), banking and payments (ClearBank, ShieldPay, GoCardless, Stripe, Repay, Checkbook.io, Carmel, Nacha ACH through partner banks, Plaid), open banking (OpenWrks, Open Bank Vision), FCA and HMRC reporting, CRM and messaging (Salesforce, Salesforce Marketing Cloud, Mailchimp, TextMagic), address and location data (Ideal Postcodes, Google APIs), collections (TrueAccord); funding partners Fasanara Capital and NCP Finance.
- Operated both lenders on one shared engineering platform with separate payment integrations, credit policies and regulatory rules; infrastructure as code with Farmer for the whole group (2021 onwards).
- Recognition: Fintech 50 (UK), TechRound 100 top UK startups #22, World Banking Awards 2019.

Executive Director (SMF3) and Board Member

Fund Ourselves Ltd (Finular Group) · London, United Kingdom **Dec 2018 – Mar 2025**

- FCA Senior Management Function holder responsible for technology on the board of the UK lender; led the development teams of Fund Ourselves Ltd (UK) and WeLendUs Inc (US); owned architecture, security and engineering.

Lead Software Engineer

Basware Oyj · Espoo, Finland **Oct 2010 – Nov 2016**

- Joined as Senior Software Engineer (Oct 2010 – Apr 2012); Lead Software Engineer from Apr 2012.
- Coding architect for the next-generation purchase-to-pay product: straight-through, paperless accounts-payable automation with ERP integration for 1M+ users in 2,000 enterprise customers; led my own team and coordinated with teams in Finland and India in a 100+ developer Scrum programme.
- Part of the group responsible for security and performance across Basware's products: OWASP-based security testing, version control and CI for a multi-team programme.
- Trained senior engineers in functional, reactive and asynchronous programming, O/R mapping, unit testing and inversion of control (C#, F#, Rx, WCF, SignalR, Entity Framework, SQL Server, NServiceBus).

Senior Software Specialist

Tieto-Tapiola Oy · Espoo, Finland **Feb 2006 – Oct 2010**

- Technical designer of the internet and intranet team for the Tapiola finance and insurance group, progressing from Software Systems Engineer to Senior Software Specialist. Architected, in a five-person team, the framework behind 70+ internet form applications (1,000+ pages): everything shipped within a year and per-application cost fell to a third.

- Consolidated separate insurance calculators into one online insurance store (ASP.NET MVC, C#, WCF) over mainframe services through a SOA layer, and shipped a REST service layer in F# over Microsoft CMS during the estate's move to .NET 3.5, test-driven development and continuous integration.

Software Designer
JA Tietoteollisuus Oy · Finland **Feb 2000 – Dec 2005**

- Full-lifecycle .NET consultant for enterprise clients. Treasurynet: browser-based centralised treasury management for a worldwide enterprise, covering cash-flow forecasting, currency-risk management, internal FX trades, and group reporting; later customised for additional clients.
- Invoicing and billing systems for energy companies, terabyte-scale retail sales analytics on OLAP cubes, customer extranets with ordering, and reusable .NET data-access components adopted across later projects.

Clients served since 2000, directly and through employers: Citibank, J.P. Morgan, Tapiola Group, Turva, Fund Ourselves, 3 Degrees, Basware, Fortum, ABB, Neste, ExxonMobil, Kesko, Hewlett-Packard, Wärtsilä, Metso and Aventis Pharma.

OPEN SOURCE AND PUBLICATIONS

- *Guidance for .NET Systems Development: Development, Architecture and Maintainability* (ISBN 979-8287818418), paperback and Kindle.
- **LINQKit** (1,800 GitHub stars, 133M NuGet downloads), **SQLProvider** (910K downloads), **Linq.Expression.Optimizer** (630K downloads): maintainer of libraries other teams ship with every day.
- **ClearBank.Net** and **CarmelNet**: typed .NET clients for UK/EU banking and a US financial platform; **FSharp.Azure.Quantum**: quantum computing library.
- **Fuuga**: open-source LLM stack for .NET, built in my own time: weight transfer from open models, LoRA and QLoRA fine-tuning, compression and GGUF or ONNX export, typed decisions, RAG with hybrid search and reranking, and OpenAI-compatible serving inside a company's own network.
- Founder of the Greater Helsinki Area F# User Group; sample code at fssnip.net/authors/Tuomas+Hietanen.

EDUCATION

- **MSc (Tech), Information Processing / Artificial Intelligence** – Lappeenranta University of Technology, 2005. Thesis graded Excellent (5/5). Minors in Software Engineering and Telecommunications, plus 21 credits of postgraduate study.
- **BSc** – Lappeenranta University of Technology.
- **Vocational Qualification in Business Administration** – finance, accounting and office services, Finnish Institute for Enterprise Management, 2016.

PERSONAL DETAILS

Available now for full-time roles, permanent or on contract. London-based, on-site or remote; open to working internationally. British and Finnish citizen with full UK right to work; English and Finnish.