

Kenneth Falck

Principal Architect — AWS Serverless & Distributed Systems

Monthly columnist for Tivi Magazine

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EXECUTIVE SUMMARY

Principal architect and software engineer with 30+ years of experience building Internet, media and cloud systems.

Focused on technically demanding cloud-native systems where cost-effectiveness, reliability and scalability matter early.

Comfortable operating independently in ambiguous, high-impact environments requiring both architecture and hands-on implementation.

CORE EXPERTISE

Cloud platforms & AI

AWS Serverless, containerized systems, event-driven systems, data systems, analytics, automation and AI integrations.

From design to production

Combining architectural design with hands-on implementation. With first-hand experience of running services in production.

Technologies commonly used

Primarily TypeScript, with Go and Python. Earlier backend development work in C/C++ and SQL.

API Gateway

Lambda

Step Functions

DynamoDB

Kinesis

Bedrock

Fargate

Greengrass

CDK

SELECTED TECHNICAL HIGHLIGHTS

W3Schools Learning Platform

2022–2026

Designed and built large-scale AWS-based systems supporting millions of users internationally.

- Secure containerized and serverless execution environments for user code execution.
- Scalable analytics pipelines and data aggregation systems for large-scale usage data.
- Backup and recovery systems for distributed repositories, object storage and user data systems.
- Production billing system migration to a cloud-native serverless architecture without downtime.
- Automated quality evaluation and flagging systems for AI-generated content.
- CRDT-based real-time collaboration systems.
- Mobile app backend systems including push notifications, payments and automated release pipelines.

Industrial IoT & Edge Systems

2017–2022

Designed and built industrial edge infrastructure for Konecranes smart crane systems.

- Yocto Linux based edge device platform.
- Secure provisioning and OTA update systems.
- Cloud-based edge application deployment and lifecycle management systems.
- Cloud tooling for telemetry collection and device fleet management.

PROFESSIONAL EXPERIENCE

Clouden Oy — Founder & Principal Architect (2016–Present)

Founded in 2016 for own product development, including designing, building and operating the WebCat.fi domain registrar service. Also worked on blockchain analytics and DeFi data systems on the Ethereum platform. Since 2023, focused on independent architecture and implementation consulting for technically demanding cloud-native systems.

Nordcloud — Principal Architect (2014–2023)

Designed cloud-native and industrial IoT solutions for diverse customer environments, spanning architecture, prototyping and production implementation. Customer work included early AWS serverless adoption for Veikkaus, and industrial IoT systems for SKF, Kemppi and others.

Sanoma News / Sanoma Entertainment — R&D Manager (2000–2013)

Technical architecture and implementation of media, gaming and digital television systems, including interactive TV platforms and Finland's biggest casual gaming platform Pelikone.fi. Also represented Sanoma Entertainment in EU research and industry project groups.

Earlier Roles (1993–2000)

Earlier development and consulting work involving Internet infrastructure, communications tools and database-backed web applications.

PUBLICATIONS & WRITING

Monthly columnist for Tivi Magazine covering technical and R&D topics. Previously wrote articles and columns for Finnish ICT publications including Tietokone, ITviikko and Proessori.

EDUCATION

Helsinki University of Technology
Computer science studies

WORKING STYLE

I enjoy creating simple solutions to complex problems. Good architecture is ultimately about minimizing future effort, cost and grief, while preserving the ability to change.

I actively use AI tools across all levels of my work — from architecture and design to implementation — while taking full ownership of the quality of what I deliver. I pay particular attention to security in AI tool usage and in the systems I build.

I automate everything I can.