

DANIËL FRANKE

Systems & Software Architect, Software Engineer

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PROFILE

Software and systems architect with over two decades of experience across large corporations, startups, and independent consulting. Specializes in designing distributed, scalable, and reliable systems, with deep expertise in cloud-native architecture and full-stack infrastructure management. Focuses on solutions that balance system performance with real user experience, and helps organizations reclaim digital and data sovereignty. Co-founder of PONC.tech (2022), building self-sovereign, privacy-respecting solutions for European companies. Available for both remote work, and work based in the Berlin area.

SKILLS

Languages & Platforms: Rust, Go, Python, TypeScript/JavaScript, Linux

Infrastructure & Cloud: Kubernetes, Docker/OCI (podman, containerd, cri-o), OpenStack, AWS, GCP, CI/CD (GitHub Actions, GitLab CI, Jenkins, Woodpecker, FluxCD)

Data & Observability: PostgreSQL, MariaDB, Redis/Valkey, Prometheus, Grafana, VictoriaMetrics

Core Expertise: Systems architecture, software architecture & threat modeling, Site Reliability Engineering, TCP/IP networking, Git-based workflows

Professional: Leadership, team building, creative problem solving • Languages: English, Dutch, German

EXPERIENCE

Lead Architect - European Health Data Alliance e.V.

Apr 2025 – Present

Builds dataspace for European healthcare organisations to securely exchange data between institutions and patients.

- Designed the EHDA vision for a healthcare dataspace.
- Continued architecture and development of the RUN-DSP dataspace connector.
- Represented EHDA-developed technologies to Gaia-X and IDSA.

Lead Architect - Health-X dataLOFT

Apr 2023 – Apr 2025

Gaia-X consortium researching the feasibility of IDSA dataspace in a healthcare context.

- Designed and built a dataspace based on Gaia-X and IDSA standards, and evaluated it for medical-sector use.
- Designed and built a lightweight, multi-tenant, standards-compliant dataspace connector.
- Designed and built a mobile wallet allowing citizens to securely connect to the dataspace.

Freelance Software Engineer - ownCloud GmbH

Jan 2023 – Aug 2023

Company that does the majority of work on ownCloud and the next-generation ownCloud infinite scale suite.

- Redesigned the oCIS telemetry architecture.
- Substantially expanded functionality of the oCIS Helm chart.
- Implemented an email-based user invitation flow.

Architect and Developer - CTSB Medical GmbH

Jun 2022 – Dec 2022

Delivered fast, accurate COVID testing using state-of-the-art testing machines.

- Designed and implemented plugins interfacing with testing machines and external APIs.
- Designed and implemented a custom flow framework to support this integration.

Freelance Developer - Berlin Institute for Health - QUEST Center

Dec 2021 – Jun 2022

The BIH QUEST Center develops and implements new approaches to support biomedical research methodology and standards.

- Translated a mock-up application design into a production-ready implementation.
- Adapted the professorship application portal for compatibility with the new application.

Lead Architect and Developer - Berlin Senate / Berlin Institute for Health

May 2021 – Jan 2022

Technical solutions for healthcare-related public sector problems.

- Designed a system to attest the authenticity of COVID test/vaccine documents (BärCODE).
- Ensured the system worked offline and in low-light conditions, without enabling tracking.

Senior Platform Engineer - Affinidi GmbH

Dec 2020 – May 2021

Affinidi is developing self sovereign identities, and the infrastructure to support them.

- Designed and implemented a GitOps workflow tailored to the company.
- Migrated a legacy Pulumi-based Kubernetes setup to Terraform and ArgoCD.
- Designed and implemented a CI/CD workflow for the application portfolio.

Cloud Architect - iNNOVO Cloud GmbH

Dec 2017 – Sep 2020

German private cloud provider focused on banks and edge computing.

- Designed, implemented, and deployed a self-service Kubernetes-as-a-Service product.
- Contributed to upstream open-source projects.
- Delivered Kubernetes and product training to customers and staff.

Cloud Architect - SysEleven GmbH

Jan 2017 – Dec 2017

SysEleven is a b2b provider of various cloud solutions, including services based on their own OpenStack cloud..

- Reverse-engineered and redesigned the automatic OpenStack installation system for use across teams.
- Designed a new incident response system focused on actionable, timely, specific alerts.

Senior Backend Developer - Zalando SE

Oct 2015 – Dec 2016

Zalando is the leading European shop for shoes, fashion, and beauty products.

- Reduced deployment file-distribution time from 2 hours to 5 minutes.
- Decoupled the build system from the deploy pipeline and ported it into its own service.
- Designed a new CI system built from multiple loosely coupled microservices.

Lead Python Developer - Booking.com

Aug 2012 – Oct 2015

Booking.com is the world's leading travel site.

- Designed and implemented a fully automatic server discovery system, eliminating manual data entry.
- Designed a REST API exposing internal data to non-Python systems, and a Django ORM-compatible client package for it.
- Grew and led a team from one person to full coverage of business needs.
- Redesigned and ported the custom configuration management database.

EARLIER CAREER

- System Administrator, Booking.com – Amsterdam, Netherlands (Jun 2012 – Aug 2012)
- AST Engineer, TomTom International, - Amsterdam, Netherlands (Nov 2010 – Jun 2012)
- Senior System Engineer, Quanza Engineering B.V. - Amsterdam, Netherlands (Apr 2005 - Oct 2010)
- Configuration Management, Siennax B.V. - Amstelveen, Netherlands (Sep 2004 – Apr 2005)
- Systems Engineer, Internet Unie Services B.V. - Amsterdam, Netherlands (Aug 2002 – Aug 2004)
- Systeembeheerder (Systems Administrator), Websilon B.V. / Valoris Nederland - Delft, Netherlands (Jan 1999 – Aug 2000)

SELECTED PROJECTS

- BärCODE - Lead Architect & Developer (2021–2024). Offline-capable vaccine/test verification system with no data collection; used as Berlin's official COVID passport. Go, Public Key Cryptography, CBOR, QR.
- BärCODE Web Issuer & Verifier - Lead Architect & Developer (2021–2024). Web-based tools for issuing and verifying BärCODEs without transferring keys to the server. TypeScript, Vue, WebAssembly, Go.
- RUN-DSP - Lead Architect & Developer (2025–Present). A fast, scalable IDSA dataspace connector implementation. Go, gRPC, Gaia-X.
- RUN-DSP S3 Provider - Lead Architect & Developer (2025–Present). Reference S3-backed provider used across RUN-DSP demos. Rust, gRPC, S3.
- ownCloud Infinite Scale - Freelance Developer (2023). Modern file-sync and share platform. Go, Helm, Microservices.

EDUCATION & CERTIFICATIONS

- ITIL Certification - BCS (2011)
- HAVO - Fons Vitae Lyceum, Netherlands (1993 – 1997)