Engineer Software

{ Platform & Solution Architecture }

Deciding how the whole thing should be built

The shape of a system worked out on paper first, so the parts fit and the cost is known before anyone writes code.

Still working out what you need?

Tell us what is going wrong, or what you are trying to build. We will tell you what it would take, roughly what it would cost, and whether we are the right people for it.

From 1,400 DKK an hour, excluding VAT — and less per hour on a longer booking.

Get in touch See what it costs

Selected work demonstrating this service.

Turn the service into a result

Make “Platform & Solution Architecture” serve a business outcome. We can connect the technical work to the users, operations and decisions it needs to support. The shape of a system worked out on paper first, so the parts fit and the cost is known before anyone writes code.

Get in touch

Examine the relevant work

Use the related work on this page to examine our approach. Ask about the tradeoffs and the conditions behind each result. One infrastructure plan for 14 departments — 14 research departments on one infrastructure plan

One infrastructure plan for 14 departments Get in touch →

One infrastructure plan for 14 departments

Designed a comprehensive infrastructure framework for a research institute impacting 14 departments, featuring flexible modules, unified data pipelines, and structured support strategies for long-term adoption.

Led a GIS map application to 10x revenue growth

Led the software development of a GIS map application, driving revenue growth by 10x and positioning the product as a primary data asset.

Overhauled internal processes, saving 8,000 hours

Overhauled internal processes, saving 8,000 hours by improving software architecture, systems, and scheduling efficiency.

A mapping product, carried end to end

Architected, developed and supported infrastructure, data processing and a map application over 2 years, covering both software delivery and operational maintenance.

Infrastructure simplified beyond AWS

Reworked an international client's infrastructure by removing unused services, adjusting capacity and moving workloads away from AWS. The founder reports a 10x reduction in cloud costs with no loss of productivity.

A maritime platform with clear system boundaries

Architected a layered maritime platform separating a Next.js PWA frontend, a Go (Huma/Fiber) API, and a PostgreSQL function layer, keeping all business logic in the database.

Designed a JSON passthrough from Postgres to API

Designed a JSON passthrough architecture where PostgreSQL functions return complete JSON forwarded verbatim by the Go API, eliminating intermediate unmarshalling and decoupling the frontend from schema changes.

Built organization context switching for users

Designed an organization context-switching system with client localStorage and server-side cookie mirroring, letting users act as managed organizations while enforcing least-privilege authorization.

Migrated the API to Huma v2 at 100% parity

Migrated the HTTP API from Fiber to Huma v2 — 649 paths and 760 operations — reaching and holding 100% parity between the routes the server registers and the OpenAPI description it publishes.

Designed a function-first PostgreSQL data layer

Designed a PostgreSQL function-first data layer — 1,275 stored functions across 34 schemas — so every read and write goes through a function the database can grant, rather than through a table.

Modeled 348 tables across 34 Postgres schemas

Modeled the maritime domain into 348 normalized tables across 34 PostgreSQL schemas — professionals, companies, ships, jobs, reviews and the rest — with SMALLINT lookups and UUID v7 keys.

Set the platform's founding technical decisions

Set the platform's founding decisions in the weeks after the repository opened in November 2025 — the layering, database-first data access and the zero-warnings bar — and they still hold nine months on.

Built infrastructure that still runs years later

Planned and implemented new infrastructure functionality for internal and external systems, building solutions durable enough to still run years later with minimal change.

Built the entire core infrastructure from scratch

As one of the first hires, designed and built the entire core infrastructure and supporting processes from scratch for a green-energy SaaS startup, laying the foundation for rapid growth.

Public services on a small server

Hosted the company's public services on a single-core 512 MB host — a git forge, a web server for seven domains, Tor, two alternative-protocol servers and intrusion banning — treating 464 MB of usable memory as the design constraint; backup automation is a separate implementation.

Built a database-driven CV generator

Built a database-driven CV, references, portfolio and cover-letter generator in Python — 41 modules, 10,580 lines — rendering six output formats from one 23-table SQLite source assembled by a 19-step idempotent pipeline.

Vendored a QR encoder in 522 lines

Vendored a QR encoder — Reed-Solomon over GF(256), fixed module layout, eight mask patterns — in 522 lines rather than take a third runtime dependency, and verified it by reading the finished matrix back with an independently written decoder.

Built a native macOS client in Swift 6

Built a native macOS messaging client in Swift 6 and SwiftUI — 11,141 lines across 53 files — over the C interface of a Rust core linked as a static archive from a pinned revision.

A bounded event pipeline for a macOS app

Bounded event buffers and logging after a recorded macOS incident with 41 MB per second growth and 111 GB of compressed pages on a 36 GB machine; a recorded full test run reduced core log lines from 610,996 to 1,411.

Adopted Swift 6 strict concurrency over C

Adopted Swift 6 complete strict concurrency with no actors, bridging a blocking C event loop to the main actor through one producer, one consumer and one ordering — after establishing that a task per event loses the ordering the interface depends on.

Looking for Platform & Solution Architecture?

Use the linked work to judge relevant experience. Tell us what you need to build; we can discuss the scope, delivery approach and handover.

Get in touch Full portfolio

Scope the work before commissioning it

Describe the workflow, the existing interfaces and the users who need the change. We can define a testable delivery and a handover that lets your team maintain it.

See what it costs Get in touch →

Talk through your requirements

Tell us what you need from “Platform & Solution Architecture”, including the deadline and the team that will maintain it. We can discuss a practical way forward.

Get in touch

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