th3chris

Christian Daniel

Cloud Solution Architect

Senior Software & AI Engineer

Cloud-native platforms, distributed systems and AI in production.
Long-standing focus on the Microsoft and .NET ecosystem.

I bring AI to where it takes work off people's hands: into the processes and platforms that companies run on. I build agent systems that support management in planning, steering or communication and drive development, refactoring and code quality. Along the way, I own the architecture and development of distributed systems, from frontend and APIs through messaging to operations on the Kubernetes cluster.

25+ years
Professional experience

since 2010
Self-employed

"Simplicity is prerequisite for reliability."
– Edsger W. Dijkstra

TECHNOLOGIES	.NET / C# · ASP.NET Core · Azure / AKS · Kubernetes · AI agents · MCP, tool & skill development · Python · GraphQL · RabbitMQ / Azure Service Bus · SQL & NoSQL (PostgreSQL, MongoDB, Redis) · Observability (ELK, OpenTelemetry, Grafana) · React / Next.js · GitOps / ArgoCD · Orleans / Akka.NET · RAG & vector databases
INDUSTRIES	Industry & MES · Pharma/GxP · Healthcare & Fitness · Consumer Goods · Finance · Logistics · Retail & E-Commerce · Automotive

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New engagements
from 11/2026

Professional experience.

Self-employed as Cloud Solution Architect and Senior Software & AI Engineer.

> 2024
3rd engagement

2022 – 2023
2nd engagement

2020 – 2022
1st engagement

Hoffmann Group

Cloud Solution Architect & AI Engineer

Hoffmann Group / Hoffmann Engineering Services GmbH

Munich · 100% remote

Member of the five-person Data Hubs team at Hoffmann Group since September 2020, currently in the third engagement. The Data Hubs consolidate data from SAP, Informatica PIM and Microsoft Dynamics CRM and serve as business-critical infrastructure for the group's digital products: 18 services across three data hubs, more than 1 million GraphQL requests per day. Three engagements in six years.

- Design and evolution of the GraphQL API gateways for the Identity, Product and Order Data Hubs with federation across the microservices; framework decision for GraphQL.NET after evaluating Hot Chocolate
- Established AI-assisted software development in the team: custom MCP servers, skills and harnesses for development, refactoring and code quality
- Event-driven synchronization services for SAP, Informatica PIM and Dynamics CRM using RabbitMQ and Azure Service Bus
- Performance engineering for flexible data access: indexing and search with Elasticsearch, caching with Redis, load testing with k6
- Observability as part of the architecture: OpenTelemetry, Prometheus/Grafana and Elastic with metric-based alerting
- Authorization model based on scopes and policies, built and operated within ISO 27001-certified company processes
- Quality assurance and CI/CD: Testcontainers integration tests, live end-to-end tests, WireMock and SonarQube quality gates in Azure DevOps pipelines
- Technical leadership through code reviews and mentoring, plus operations, incident analysis and support of the production systems

Technologies .NET, C#, ASP.NET Core, Entity Framework Core, GraphQL.NET, PostgreSQL, MongoDB, Elasticsearch, Redis, RabbitMQ, OpenTelemetry, Prometheus / Grafana, SAP Integration, Informatica PIM, Azure, Kubernetes, Testcontainers, Azure DevOps, Cake Build, GitVersion, GraphQL Federation, Next.js, React, TimescaleDB, Azure Service Bus, Azure Event Hubs, Hangfire, Quartz.NET, Jaeger, Anthropic Claude API (.NET), MCP Server, Microsoft Dataverse / Dynamics CRM, Azure Key Vault / App Configuration, Helm, Docker, WireMock.Net, k6, Anchore Grype / Trivy, SonarQube, Renovate Bot, NUnit, xUnit

> 2026
AI decision platform

2026
Internal controlling application

2026
Proof of concept

active Fit und Gesund GmbH

Software Architect & AI Engineer

active Fit und Gesund GmbH (fitness & therapy)

Trier region · remote

Several projects for a regional fitness and therapy group with four locations: an internal controlling application for utilization, target hours and revenue potential of the practices, an agent platform that supports management in day-to-day business, and a proof of concept for an AI booking assistant.

- AI decision platform for management: an agent setup for planning, monitoring and steering the company, connected via RAG, MCP and skills
- Agents for email triage, requirements management and steering customer communication
- Connected services: Mail-Archiver, Paperless-ngx as document archive and custom sync tools for fitness and therapy industry software, including Magicline and TheOrg
- Internal controlling application “activehub”: capacity planning, target/actual comparison and a utilization traffic light per location
- Proof of concept for an AI booking assistant with voice output (OpenAI)

Technologies .NET, C#, GraphQL, EF Core, PostgreSQL, Wolverine, ASP.NET Identity, Next.js, OpenAI API, GitLab CI, Kubernetes, ArgoCD

2026
Orthopaedic specialist practice

2026
Logistics company

AI automation & IT security for SMEs

AI Engineer & Process Automation

Trier/Eifel region · remote + on-site

Engagements reporting directly to the management of a logistics company and an orthopaedic specialist practice: AI-supported automation of business processes, securing the IT infrastructure and digital recruiting processes.

- AI-supported automation of business processes: analysis of operations and agent workflows that access document and email archives via MCP
- Securing the IT infrastructure: security analysis, incident response and hardening of internally used services
- Automated staff recruiting from job posting to application intake, with first job interviews within one week of campaign launch
- New websites as the foundation for the digital recruiting processes

Technologies Python, MCP, Hermes, Live-LLMs, oMLX, Paperless-ngx, Mail-Archiver, Next.js, GitLab CI, Kubernetes, ArgoCD

2023 – 2024

advastore SE

Senior Software Architect - Distributed Systems

100% remote

Performance optimization of the distributed control system for an autonomous shuttle fleet in warehouse automation. Distributed systems under real-time conditions, where every millisecond of latency limits throughput.

- Performance optimization of the distributed control system for an autonomous robot fleet in a warehouse automation platform (Akka.NET actor model), as part of an experienced senior team
- Evolution of path planning and job assignment by position, load and priority, for higher throughput and calmer operations
- MQTT-based real-time communication for latency-critical robot coordination
- As-is analysis of processes and data structures, automated tests and technical documentation as a fixed part of the engagement

Technologies .NET, C#, Akka.NET, Actor Model, MQTT, gRPC, Python, TypeScript, MongoDB, PostgreSQL, Elasticsearch, Docker, Kubernetes, Azure AKS, Angular, Vue.js, xUnit, Cassandra, Terraform, Flux v2

2022

Quickmail Systems GmbH

Senior Solution Developer

Quickmail Systems GmbH / Quickmail AG

100% remote

Self-service portal that lets business customers configure and order large unaddressed mail campaigns themselves, with full responsibility for architecture, frontend and backend.

- Independent end-to-end development of the customer self-service portal for high-volume direct-mail campaigns
- Translating complex mailing parameters into clear, responsive self-service flows (Vue.js)
- Robust order processing via cleanly cut APIs and a maintainable application architecture (ASP.NET Core)

Technologies .NET, C#, ASP.NET Core, Vue.js, TypeScript, Microsoft SQL Server, Azure

2020

A EINS Digital Innovation GmbH

App & API Developer

A EINS Digital Innovation GmbH (Wittlich)

Wittlich · remote

Extending a sales app and its API within an existing team: contract bundling, new input dialogs, a GetContracts interface and cross-selling adapters. Fast onboarding, delivery and an orderly handover to the team.

Technologies .NET, C#, Xamarin.Forms

2019 – 2020

Quickmail Systems GmbH

Lead App Developer

Quickmail Systems GmbH / Quickpac AG (Switzerland)

100% remote

Sole developer responsible for the mobile applications of the Swiss delivery service Quickpac. Offline-first architecture for reliable operation in mountain regions with patchy network coverage, including scanner and RFID hardware integration.

- Design and development of the "QuickDelivery" courier app: routes, barcode scanning, GPS and time tracking, trilingual in DE/FR/IT
- Offline-first sync engine for reliable operation under unstable network coverage
- Kiosk mode and device management for delivery vehicles, integration of Zebra scanners and RFID
- Apps for depot work, parcel pickup stations and damage management (BPMN workflow) on a shared architectural base

Technologies .NET Core, C#, Xamarin.Forms, MVVM, Microsoft SQL Server, Azure, Zebra Scanner, RFID, NUnit

2015 – 2019

Itelligence AG

Senior Full-Stack Developer - Cross-Platform

Itelligence AG / ITML GmbH

Pforzheim / Bielefeld · hybrid, later 70% remote

Almost four years of enterprise apps for the field sales teams of international brands, including Miele, Emsa, Steiff, Techtronic Industries and Prinoth. Individual customer solutions grew into a shared, fully configurable app framework; most recently two years of designing and building the “NextGen App” for Viega.

- Implementation of the generic, fully configurable app framework based on .NET Core and Xamarin.Forms: one codebase for iOS, Android and Windows
- Implementation of various sales and service apps for major clients such as Miele, Emsa, Steiff, Techtronic Industries and Prinoth, from configuration to rollout and maintenance
- Integration of distributed backend systems and enterprise data (incl. SAP, BMEcat catalogs) via scalable interfaces and GraphQL
- Modular framework architecture with dedicated building blocks for data access, GraphQL, layout (iOS/UWP), sync, authentication and logging

Technologies .NET Core, C#, Xamarin.Forms, Xamarin.iOS, Xamarin.Android, GraphQL, MVVM, UWP, MongoDB, Prism, NUnit

2012 – 2016

10Geeks Software Engineering GbR

Co-Founder & CTO

10Geeks Software Engineering GbR (Ewen & Daniel)

Trier region

Co-founder and CTO of the software company 10Geeks with two business areas: in-house IoT products and client projects, with six employees.

- KNX.NET: open-source driver for the KNX automation bus, later ported to .NET Core and published on NuGet under the MIT license
- Switch smart home app: the HomeKit idea for the Microsoft ecosystem (Xamarin, Azure, SignalR)
- Quality management tool for BMW, commissioned by IBS / Siemens
- Cloud-based vehicle configurator for Werner Fahrzeugbau plus tournament and event software, both via Medienfabrik Trier
- Product development “Word-Expander” for Bartels Media; game design and implementation of “Flappy-Geek” (UWP, iOS, Android)
- Nominated for mobile awards several times

Technologies C#, .NET Core, .NET Framework, Xamarin.Forms, Xamarin.iOS, Xamarin.Android, UWP, Windows Presentation Foundation, MVVM, KNX Protocol, Azure, Azure IoT Hub, Azure DevOps, Windows Phone, Visual Studio, Git

2014

Razorfish Frankfurt

App Developer - World Cup Campaign

Razorfish Frankfurt / McDonald's Deutschland

Frankfurt · 80% on-site

Virtual football game in the official McDonald's app for the 2014 FIFA World Cup: scan the packaging, trigger a shot on goal. Delivered against a fixed deadline for an audience of millions and released on time in all app stores.

- Implementation of the promotional game for Windows Phone, including performance optimization of the existing app
- Then reinforcing the iOS team: the same game mechanics natively in Objective-C
- Camera integration, packaging recognition, animations and backend integration for entry validation

Technologies C#, .NET Framework, Objective-C, Windows Phone, iOS, Xcode, Visual Studio

2013 – 2014

Schneider Electric

Software Developer & Software Architect

Schneider Electric (Marktheidenfeld)

50% on-site, 50% remote

Integration of engineering tools from several divisions into one unified application, in some cases based solely on existing binaries. Microsoft consultants had previously classified the project as unsolvable; planned, implemented and shipped to production with the team.

- Development of the central components of the SoMachine suite: shell, frame manager, domain model and application services (WPF, dependency injection)
- Reverse engineering of proprietary tools for seamless integration into one consistent UI, including COM interop
- Python tools and build automation (TeamCity, Jenkins) for multi-tool workflows with international teams
- Mentoring of permanent team members and code reviews in the core integration team

Technologies C#, .NET Framework, Windows Presentation Foundation, Python, COM-Interop, SCADA Integration, TeamCity, Jenkins, Visual Studio, XML, Reverse Engineering

2010 – 2013

Sartorius

Software Developer & Software Architect

Sartorius (Melsungen / Göttingen)

80% on-site, 20% remote

First engagement as a self-employed consultant: development of a SCADA system for fermentation processes, bioreactors and precision scales in a regulated biotech environment. The engagement was extended several times.

- Design and development of a near-time, workflow-based data streaming service for biotech process control
- Plugin-based driver infrastructure for scales and lab devices: serial protocols, TCP/IP and REST
- Sophisticated WPF visualization tools with real-time data feeds for fermentation processes
- Development in a GxP environment with 21 CFR Part 11 and validatable processes in mind

Technologies C#, .NET Framework, WCF Data Services, Windows Presentation Foundation, Windows Workflow Foundation, COM-Interop, Microsoft SQL Server, Team Foundation Server, Visual Studio, Resharper

2007 – 2010

Felten Group

.NET Software Architect

Felten Group (Wecker, Luxembourg)

on-site + client deployments

MES systems for pharmaceutical and cosmetics production with high demands on quality and validation. The focus was a proprietary scripting language with its own IDE, which made customer-specific, FDA-validatable systems much faster to implement.

- Development of a proprietary scripting language with its own IDE, IntelliSense, syntax highlighting and debugging included
- Precision weighing and control systems for pharmaceutical production, in use at Boehringer Ingelheim, Symrise and Beiersdorf among others
- FDA-validatable solutions per 21 CFR Part 11
- Introduction of modern ALM tools (Team Foundation Server) in the development team

Technologies C#, C++, .NET Framework, Windows Presentation Foundation, Windows Forms, Custom DSL, IDE Development, Microsoft SQL Server, MES Systems, FDA 21 CFR Part 11, Team Foundation Server, ALM, Visual Studio, XML Configuration

2004 – 2007

ticket.International

Software Developer - POS & ATM Lead Team

ticket.International (Daun)

on-site + international deployments

POS systems, ticket machines and access control for cinemas and leisure parks, with a focus on hardware integration and international on-site rollouts.

- Co-development of the Dolphin Suite: POS system, self-service kiosks, seat booking and a scalable backend
- Hardware integration of barcode scanners, RFID readers, EC card terminals, printers and access gates
- International on-site introductions: implementation, training and go-live support

Technologies Borland Delphi, Borland C++, Delphi Visual Component Library, Firebird/InterBase, Microsoft SQL Server, POS Systems, ATM Systems, Barcode Scanner, RFID Reader, EC-Card Terminals, Printer Integration, Crystal Reports

2001 – 2003

Fimat International Banque S.A.

Programming Analyst

Fimat International Banque S.A. - Société Générale Group (Frankfurt)

Frankfurt · on-site

Career start at a Frankfurt securities broker: risk management and regulatory reporting obligations in securities trading, in a six-person development team.

- Development of the “Miracle” risk management tool for real-time securities trading analysis
- Implementation of regulatory interfaces to BaFin for compliance and reporting
- Migration of Access and Excel solutions into a newly created intranet application framework (Zope/Python)

Technologies Visual C++, Visual Basic, JavaScript, Python, ASP.NET, Component Object Model+ / Distributed COM, Active Template Library / Microsoft Foundation Classes, Microsoft SQL Server, Oracle, Microsoft Access Migration, Excel Automation, BaFin Compliance, Financial Trading Systems, Risk Management, Securities Analysis

Technical profile.

Focus areas and technologies from project work.

Backend & Microservices	.NET (1.1 - 10), C#, ASP.NET Core, gRPC, SignalR, Entity Framework Core, WCF
AI & Machine Learning	Agent orchestration, AI-driven process automation, RAG pipelines, Model Context Protocol (MCP), local LLMs (oMLX), Semantic Kernel, OpenAI API, Anthropic Claude, embedding models, Pgvector, Python
AI-Assisted Development	Claude Code, GitHub Copilot, Cursor, Microsoft Foundry, skill and harness engineering, MCP server development, agentic coding
Distributed Systems & Messaging	Akka.NET, Microsoft Orleans, Event-Driven Architecture, RabbitMQ, Azure Service Bus, Event Hubs, MQTT
API Design & GraphQL	GraphQL.NET, GraphQL Federation, REST, OpenAPI, API Gateways, Schema Design
Databases (SQL & NoSQL)	PostgreSQL, MS SQL Server, MongoDB, Elasticsearch, Redis, Cassandra, SQLite, Oracle, Pgvector Extension
Cloud, DevOps & Observability	Azure (AKS, App Services, Functions), Kubernetes, Docker, Helm, Terraform, Ansible, ArgoCD / Flux v2 (GitOps), Azure DevOps, GitHub Actions, GitLab CI/CD, OpenTelemetry, ELK, Prometheus / Grafana
Frontend & Web	TypeScript, JavaScript, React, Next.js, Vue.js, Angular, Tailwind CSS, Node.js
Cross-Platform & Mobile	SwiftUI (macOS, iOS), Xamarin.Forms, Xamarin.iOS, Xamarin.Android, UWP, WPF, MVVM, Prism
Software Architecture	Domain-Driven Design (DDD), Clean Architecture, Hexagonal Architecture, Vertical Slice Architecture, CQRS, Event-Sourcing, Event-Driven Architecture, Microservices, Modular Monoliths
Testing & Quality Assurance	xUnit, NUnit, Testcontainers, k6, WireMock, SonarQube, Contract Testing
Security & Compliance	OIDC/OAuth2, API security, ISO 27001-compliant development processes, FDA 21 CFR Part 11, BaFin compliance

Own products & open source.

Product development and own infrastructure.

2026

elapse

Time tracking & e-invoicing

Billing system that runs the entire billing chain, workflow-driven and AI-supported: from second-accurate time tracking through timesheets, ZUGFeRD-compliant invoices and dunning to bookkeeping. Plus native apps for macOS and iOS as well as MCP servers, tooling and skills.

Technologies .NET, C#, GraphQL, EF Core, PostgreSQL, Wolverine, QuestPDF, MCP Server, SwiftUI, Next.js

2026

Jarvis

AI agent orchestration

Agent system and personal assistant for running the company and for self-management. Task extraction from email, document management, daily planning and meeting preparation, requirements management and customer communication. Integrated with time tracking, training, nutrition and home automation. Multi-agent orchestration across Claude, Hermes, Paperclip and Microsoft Foundry; native clients for macOS and iOS with a cinematic UI.

Technologies Hermes Agent, Claude, Paperclip, MCP, OpenAI gpt-live (WebRTC), Python / FastAPI, WebGL, Swift (AppKit, WebKit), Kubernetes, ArgoCD, Infisical

2024

athlo

Training platform for endurance athletes

Training data sync from Strava, Garmin and Wahoo, AI-generated training plans and load analytics for cycling and running. Microservice architecture behind a GraphQL gateway.

Technologies .NET, C#, GraphQL, gRPC, RabbitMQ, PostgreSQL, Redis, OpenIddict, React, Stripe, Kubernetes, ArgoCD

2026

nomnomai

AI nutrition assistant

Recipes, weekly planning and shopping lists for families, with LLM, image generation and RAG services in the backend and apps for web, iOS, Android and watchOS.

Technologies .NET, C#, GraphQL, PostgreSQL, OpenAI API, Next.js, Swift, Kubernetes

2020

knx-dotnet

Open source

KNXnet/IP routing and tunneling for .NET, released on NuGet under the MIT license. Continuation of the smart home work from the 10Geeks days.

Technologies .NET, C#

2018

Kubernetes platform & platform engineering

Two self-operated multi-node Kubernetes clusters, fully as infrastructure as code: one for development, experiments and previews, one for running client applications in production. GitOps with ArgoCD; single sign-on via Authentik, Pocket ID and TinyAuth; secret management with Infisical, including for AI agents; GitLab with CI/CD and container registry; monitoring. Various application stacks.

Technologies k3s, ArgoCD, Traefik, cert-manager, MetalLB, Longhorn, Infisical / SealedSecrets, Authentik / Pocket ID / TinyAuth, GitLab CI, SonarQube, ELK / Prometheus, Renovate, Ansible

Voices from projects.

How my clients and project partners describe working with me.

„ Herr Daniel gilt innerhalb des Teams als wichtiger Wissensträger und treibt die produktive Nutzung moderner AI-Werkzeuge aktiv voran.“

Project reference 08/2026

„ Herr Daniel zeichnet sich dadurch aus aktiv auf Problemstellungen oder Lücken in Konzepten hinzuweisen und im Team eine optimale Lösung für solche Fälle zu erarbeiten.“

Project reference 03/2022

Dorothea Schwarz

Senior Digital Product Owner Data Hubs · Hoffmann Group

„ … outstanding mind with excellent skills in development; great software architect. Highly recommended if you need to find a professional fast and scalable solution. We've been working together on a project that was rated by Microsoft professionals as ‚not possible'. Together with Christian our team managed to deliver a great working solution/product! “

Oscar Angress

Cyber Security Consultant · Bosch Engineering GmbH
LinkedIn recommendation · Project: Schneider Electric SoMachine

„ Christian ist für mich der perfekte Freiberufler: flexibel, spezialisiert, clever und sympathisch.“

Marcel Theunissen

CEO · Sales Culture · LinkedIn recommendation

LANGUAGES

German · Native

English · C1, fluent

AWARDS & OPEN SOURCE

Nominated several times for Mobile Awards

Author of knx-dotnet (NuGet, MIT)

AWAY FROM THE CODE

Tech lab

- Home automation (KNX, Home Assistant)
- Kubernetes and platform engineering
- IT security

Endurance sports

- Triathlon
- Road cycling
- Bike-packing adventures

RC model sports (team pilot at minicopter)