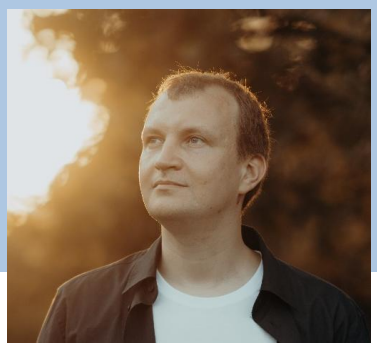

CURRICULUM VITAE / SEPTEMBER 2026

Dr.-Ing.

Thomas Krause

SOFTWARE ARCHITECT / SENIOR CONSULTANT

CONTACT

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+49 178 1986886

akzente.it

50679 Cologne, Germany

Born 1986

FOCUS AREAS

Cloud and Architecture
Secure, scalable and highly available platforms

Enterprise Web
Complex business processes, APIs and system integration

Applied AI
LLMs and data processing in regulated domains

CERTIFICATIONS

Microsoft Certified

Azure AI Apps and Agents Developer Associate

Azure Data Scientist Associate

MCSD · MCSA

iSAQB Certified

Certified Professional for Software Architecture – Foundation Level (CPSA-F)

LANGUAGES

German
Native speaker

English and Spanish
Fluent, spoken and written

Hello,

I help teams turn demanding business processes into secure Azure and .NET platforms, AI-powered workflows and maintainable technical systems.

PROFESSIONAL EXPERIENCE

Since 09/2005 · Akzente.IT

Owner and freelance software architect
Senior Consultant · Tech Lead · Head of Development

Clients in the energy sector, laboratory diagnostics, transportation and ERP.

SELECTED PROJECTS VIA AKZENTE.IT

SINCE 01/2019

Sales Portal for an Energy Supplier

Technical lead developer in a Scrum team for the rebuild and continued development of a sales portal. Cloud-native architecture, CMS, integration of external interfaces; high-availability Azure operations with multi-level caching, monitoring and secure releases. Selected sub-projects:

- Integration of a semantic search using Azure Foundry Agents and Grounding with Bing Custom Search. Customer questions are answered in context, based on relevant portal content.
- Architecture and implementation of AI-based vehicle registration document recognition with Azure Document Intelligence and Custom Vision, including model training, deployment and Azure Functions integration.

.NET · ASP.NET Core · Azure · Vue 3 · Azure DevOps · Agentic Coding · AI

SINCE 09/2024

GenDAI / AI-Powered Microbiome Diagnostics

Coordination of project partners, overall architecture and diagnostic workflows in an EU research project based on my doctoral thesis. Development of an AI-powered platform with laboratory partners in compliance with IVDR and GDPR.

Python · Microservices · Airflow · Agentic Coding · AI

Technologies & Engagement

TECHNOLOGIES

Languages and Backend

C# · .NET · ASP.NET Core
TypeScript · JavaScript · Python
REST · OpenAPI

Cloud and Infrastructure

Azure · App Service · Functions
API Management · Bicep
Docker · Airflow · Key Vault
Zero Trust Architecture

Frontend

Vue 3 · Vite · HTML
CSS / SCSS · Pinia

AI and Data Analytics

Microsoft Foundry · OpenAI API
LLMs · RAG · Embeddings
Azure Document Intelligence ·
Azure Custom Vision
LangChain · deepagents

Data and Security

SQL Server · Redis
Entity Framework · Entra ID
OAuth 2.0 · OpenID Connect

DevOps and Quality

Azure DevOps · GitHub Actions
Git · OpenTelemetry
Application Insights
Playwright · Cypress · Vitest

Development Environments

Visual Studio
Visual Studio Code
Claude Code · Codex CLI
GitHub Copilot

ENGAGEMENT

International Committees

Member of the standards committee for ISO 14721 (OAIS)

DevCouch

Co-founder of the German developer podcast

devcouch.de

DR.-ING. THOMAS KRAUSE

Project Experience and Qualifications

FURTHER PROJECTS VIA AKZENTE.IT

05/2021 TO 02/2024

Automated qPCR Diagnostics

Technical lead, requirements management and design of the qPCR data analysis in coordination with medical laboratories.

07/2016 TO 12/2018

Customer Portal for an Energy Supplier

Continued development in a Scrum team, integration of SAP and other systems, as well as operations, monitoring and performance optimization in Microsoft Azure.

04/2016 TO 06/2016

Laboratory Information Management System (LIMS)

Support during the final months before release: new features, bug fixing and REST interfaces, as well as functional coordination of an offshore team.

06/2012 TO 03/2016

International Traffic Monitoring

Development of .NET systems for analyzing traffic monitoring data. Direct client contact, international assignments and repeated follow-up contracts.

EDUCATION AND RESEARCH

SINCE 12/2024

Habilitation Project

Agentic systems for medical diagnostics
FernUniversität in Hagen, part-time while working

2019 TO 2024

Doctorate (Dr.-Ing.)

AI and big data for genome-based diagnostics
FernUniversität in Hagen · Grade: summa cum laude

2013 TO 2016

M.Sc. Practical Computer Science

FernUniversität in Hagen · Grade 1.2

2006 TO 2012

Diploma in Computer Science (Diplom-Informatiker)

Cologne University of Applied Sciences · Grade 1.3

2003 TO 2006

Information Technology Assistant

Berufskolleg Oberberg · Advanced technical college entrance qualification
Top of class · Grade 1.0