# Johannes Hoppe

Freelance Full-Stack Architect Angular & .NET
Google Developer Expert (GDE) for Angular

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**Availability:** now, full-time · remote or on site within about an hour of Heidelberg (Mannheim, Karlsruhe, Darmstadt, Frankfurt) · German and English

**25+**
years of building web applications for companies

**8 years**
lead developer and architect in energy trading

**GDE**
Google Developer Expert for Angular since 2019

**100+**
workshops for development teams

**70+**
talks at conferences and user groups

**66,000+**
repositories use angular-cli-ghpages

## Skills

**Frontend**
Angular (expert), TypeScript, JavaScript, RxJS, NgRx, Signals, Signal Forms, CopilotKit, Generative UI, Accessibility (a11y), WCAG, ARIA / @angular/aria, Internationalization (i18n), Kendo UI for Angular, Angular Material, Apollo GraphQL, HTML, CSS/SCSS, AngularJS, React (basic), Vue.js (basic) and many more

**Backend**
.NET, C#, ASP.NET Core, ASP.NET MVC, Web API, OpenAPI, GraphQL, CQRS, Event Sourcing, Azure Service Bus, REST, OData, Entity Framework, Node.js, NestJS, Express

**Data**
MS SQL Server, Data Warehouse, Business Intelligence, Data Visualization, PostgreSQL, MongoDB, MySQL, Redis

**Testing**
Vitest, Jest, Jasmine, Playwright, Contract Testing, Test-Driven Development

## Profile

I have been building web applications for companies for more than 25 years, mostly with .NET in the backend and Angular in the frontend. Most recently I spent eight years as lead developer and architect for a business-critical energy trading application, **full stack with .NET and Angular**. In the same project I built an AI agent that answers business users' questions about their trading data in plain language.

Google named me a **Google Developer Expert** (GDE) for Angular in 2019. I contribute to Angular and the Angular CLI, and I maintain angular-cli-ghpages, the `ng deploy` builder for GitHub Pages, used by more than 66,000 repositories on GitHub. Together with my two co-authors I write the best-selling German Angular book, published by dpunkt.verlag.

**Data protection and data security** matter to me most of all where AI is involved. In my project learnly.school, the browser itself encrypts sensitive data, so the server is technically unable to analyze it. In my talk "Dangerous AI Skills", I show which security vulnerabilities can arise when teams use coding agents.

I work with coding agents like **Claude Code**, Codex, Antigravity or GitHub Copilot every day, and I show teams how to get faster with them without losing quality.

## Key Areas

| | |
|---|---|
| **Angular Architecture and Lead Development** | Signals, Signal Forms, Zoneless, SSR, NgRx, RxJS, migrating large codebases (including AngularJS → Angular), accessibility (a11y), internationalization (i18n) |

**AI**
Claude Code, Codex, Antigravity, GitHub Copilot, Model Context Protocol (MCP), WebMCP, AG-UI, Mastra, Microsoft Agent Framework, Microsoft.Extensions.AI, LLM APIs (Anthropic Claude, OpenAI, Google Gemini, Mistral), Tool Calling, Semantic Layer, Conversational Analytics, AI Agents, Context Engineering, AI Security

**DevOps**
Git, GitHub Actions, Azure DevOps, TeamCity, Jenkins, Docker, Docker Compose, Cloudflare, Microsoft Azure, pnpm, Supply Chain Security, Angular CLI (workspaces and monorepos), Angular updates and migrations (ng update)

**Methods**
Software Architecture, Requirements Engineering following IREB (elicitation and management), Domain-Driven Design, Clean Code, Scrum, Code Reviews, Technical Leadership

## Industry Experience

**Energy supply (8+ years)**
Guarantees of origin (GoO) and $CO_2$ / emission allowances (EU ETS) for renewable energy (wind, solar, biomethane); hedging; trading and integration with trading systems

**Banking & Financial Services**
Structured retail products: securitized derivatives (certificates and warrants); trading and product presentation

**Software & IT Services**

**Machinery**

**Wholesale and Retail**

**Online Marketplaces**

**Debt and Insolvency Counseling**

**Travel and Tourism**

| | |
|---|---|
| **Full Stack with .NET** | C#, ASP.NET Core, Web API, GraphQL, Entity Framework, SQL Server |
| **Node.js Backends** | TypeScript, NestJS, Express |
| **Agentic Coding in Teams** | Claude Code, Codex, Antigravity, GitHub Copilot, Context Engineering, custom MCP servers |
| **AI in the Product** | AI agents in business applications, Generative UI, AG-UI, CopilotKit, Mastra, Microsoft Agent Framework, LLM APIs, MCP and WebMCP, security of AI agents |
| **Data Protection and Security** | Privacy by Design, anonymization, client-side encryption, security of AI agents, supply chain security |
| **Coaching and Training** | more than 100 workshops for development teams (Angular.Schule, Agentic.Schule) |

## Projects

2000 – present

### Owner, Developer and Trainer

**HAUS HOPPE - ITS** · freelance, with the brands Angular.Schule (since 2016) and Agentic.Schule (since 2026)

- More than 100 workshops and in-house trainings for development teams since 2016 (Angular.Schule)
- Own web applications built entirely in TypeScript: Node.js backends with NestJS and Express, Angular frontends with SSR, hosted on my own server and Cloudflare, CI/CD with GitHub Actions
- Development and operation of learnly.school, a learning platform with an AI companion for secondary schools. Names and confidential details are encrypted in the browser.
- Agentic coding with Claude Code: parallel agents, custom MCP servers, agent orchestration with tests as guardrails
- Contributor to Angular and the Angular CLI, maintainer of angular-cli-ghpages
- Articles (German and English) on context engineering, WebMCP in Angular, AI security and AI penetration testing; talk “Dangerous AI Skills” (DevFest Nuremberg 2026, NG Switzerland 2027)
- Since 2026, also training on agentic coding (Agentic.Schule)

## Education and Teaching

**Diplom-Informatiker (FH)**, degree in computer science, SRH University Heidelberg, focus on business informatics

**Guest lecturer**, DHBW Mosbach (Baden-Württemberg Cooperative State University), 2013 – 2020 (NoSQL, Angular)

**Lecturer**, SRH University Heidelberg, 2009 – 2011 (CRM, Rich Internet Applications, Data Mining)

## Awards

Google Developer Expert (GDE) for Angular, since 2019




Telerik Developer Expert, 2015 – 2019

Advisory Board, Developer Week (DWX), 2014 – 2019

Microsoft Imagine Cup: 1st place Germany and top 10 worldwide, Embedded Development (2010); 2nd place Germany, Software Design (2009)

## Languages

German: native · English: fluent (professional working proficiency)

01/2018 – 11/2026

### Lead Full-Stack Developer & Software Architect

**Large energy provider**

(name on request) · Energy trading

Application for portfolio and contract management in power trading and sales. Eight years full stack with .NET and Angular.

- Architecture and continuous development of the entire application
- Architecture based on CQRS and Event Sourcing on the server and NgRx on the client
- Accessible (a11y) and bilingual user interface (German and English, i18n)
- Business products for renewable energy: guarantees of origin and $CO_2$ certificates, tranches and hedging
- Replaced a legacy system, including data migration
- Final project: introduced an AI agent inside the business application that answers questions about key figures and trading data in plain language, without access to personal data
- Workshops for the team on TypeScript, Angular, RxJS and NgRx; E2E and integration testing; agentic coding with Claude Code
- Public demo of the approach: "Agentic Analytics with Angular" (github.com/angular-schule/demo-agentic-analytics), with Generative UI, AG-UI and a choice of .NET or Node.js backend

.NET, C#, ASP.NET Core, GraphQL, CQRS, Event Sourcing, Azure Service Bus, Entity Framework Core, SQL, Angular, NgRx, Kendo UI for Angular, Apollo, Azure DevOps

01/2017 – 12/2017

### Frontend Architect & Full-Stack Developer

**Heidelberger Druckmaschinen AG** · Machinery

Angular portal for customers, live in production since the end of 2017.

- Frontend architecture and migration from AngularJS to Angular with ngUpgrade, running old and new code side by side
- Workshops for the team on TypeScript and Angular, introduced Redux

C#, ASP.NET MVC, Web API, Entity Framework, Node.js, Webpack, AngularJS, Angular, Kendo UI, Karma, Jasmine, Jenkins

01/2014 – 12/2016

### Software Architect & Senior Frontend Developer

**Commerzbank AG, Frankfurt** · Investment banking

Relaunch of a market overview portal (Corporates & Markets) as a single-page application; went live at the end of 2015 and replaced the Web Forms solution, with further portals to follow.

- Software architecture, evaluation of JavaScript frameworks, web performance optimization
- Trainings for the team on .NET, JavaScript, TypeScript and AngularJS / Angular

C#, ASP.NET MVC, .NET Core, Web API, OData, Entity Framework, AngularJS, Node.js, Gulp, Webpack, Kendo UI, Karma, Jasmine, Protractor, TFS

01/2013 – 12/2013

### Software Architect & Senior .NET/JavaScript Developer

**synergetic agency AG (end client: STIHL)** · Wholesale and retail

New B2B portal (online wholesale and dealer platform) for a world market leader, unifying the previous country-specific solutions.

C#, ASP.NET MVC, Web API, Ext JS, jQuery, Knockout, Require.js, Sass, Jasmine, SQL Server, TFS, TeamCity

10/2012 – 12/2012

### Senior .NET/JavaScript Developer

**TeamViewer GmbH, Göppingen** · Software & IT services

Enhancements and bug fixes for the web-based Management Console. Workshop for the development team on JavaScript unit testing (Jasmine, TDD, BDD).

C#, ASP.NET MVC, jQuery, Kendo UI, Microsoft Azure

06/2012 – 09/2012

### Software Architect & Lead Developer (Prototype)

**Softwarekontor GmbH** · Travel and tourism

HTML5 portal for a travel provider with new interaction concepts; evaluated the technologies and led the development of the prototype, resulting in a cloud-based framework for the implementation.

Microsoft Azure, C#, ASP.NET MVC, Web API, MongoDB, jQuery, Knockout.js, Kendo UI

10/2011 – 05/2012

### .NET Developer, Backend & Web Portal

**EnBW Energie Baden-Württemberg / Yello Strom** · Energy supply

Campaigns and technical renewals, integration of SAP for Utilities (SAP IS-U).

C#, ASP.NET Web Forms, WCF, MS SQL Server, TFS

02/2011 – 06/2011

### Senior .NET Developer, Web Portal with MongoDB

**AutoScout24** · Online marketplaces

Web portal for an operator of Europe-wide online marketplaces; at its core a scalable calculation that is presented to visitors as search results.

C#, ASP.NET MVC, MongoDB, jQuery, Knockout, Selenium, Jasmine, Git, TeamCity

01/2010 – 12/2011

### Project Lead & .NET Developer

**Anwaltskanzlei Westphal (law firm)** · Debt and insolvency counseling

Custom CRM system with ASP.NET MVC, Entity Framework and SQL Server, plus the firm's websites.

08/2003 – 12/2011

### Founder & Owner, E-Commerce

**Footbag Freaks Shop & Promotion Footbags**

Two online businesses of my own, together the market leader for printed promotional footbags at the time. Closed once the footbag trend had faded.

05/2007 – 12/2009

### Software Developer, Technology Advisory Office

**SAP, Walldorf**

Internship, then working student and developer alongside my studies.

*Further earlier projects since 2000 on request.*

## Publications and Talks




### Angular-Buch: Das moderne Praxisbuch zu Angular

The best-selling German book on Angular, dpunkt.verlag, written with Ferdinand Malcher and Danny Koppenhagen; editions 2017, 2019, 2020, 2023 and 2026, rewritten from scratch for Angular 22.

Topics include: Signals, Signal Forms, Resource API, zoneless Angular, routing, HTTP, RxJS, testing with Vitest, accessibility (a11y), internationalization (i18n), server-side rendering, deployment, AI support for Angular

- Articles in dotnetpro, Web & Mobile Developer, Hakin9 and others; article series on agentic.schule (2026)
- More than 70 talks at conferences and user groups, including AngularConnect London, enterJS, Developer Week (DWX), DevFest Nuremberg and NG Switzerland

### Available now

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