

Jan Seidler

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Personal Information	
Date of Birth	22. August 1990
Place of Birth	Bonn, Germany
Nationality	German
Family Status	married
Academic Degree	Bachelor of Science, Informatics (Cologne University of Applied Sciences)

Language Skills	
German	Business fluent
English	Business fluent
Spanish	Native language
Russian	Basic knowledge
Turkish	Basic knowledge

Summary
<p><i>I am a seasoned Fullstack Engineer with strong expertise in co-creation and delivering business value. I have spearheaded the design and development of comprehensive solutions, ranging from AI chatbots to Industrial IoT Dashboards, and Financial and Health Web Applications. My innovative spirit and unwavering curiosity drive me to harness the power of AI alongside my versatile fullstack engineering skills, fostering creative challenge-solving.</i></p> <p><i>I advocate for leveraging collective wisdom and machine intelligence to effectively tackle real-world challenges. I recognise the pivotal role of integrating software, hardware, and AI in advancing human-digital interaction. My paramount objective is to deeply understand my clients' business needs, tirelessly striving to exceed their expectations with tailor-made solutions. My pursuit of innovation is complemented by my steadfast commitment to continuous learning and growth.</i></p>

Interests & Hobbies	
Interests	<ul style="list-style-type: none">➤ Passion for AI: "Everything a human can do, AI empowers."➤ Build bridges between cultures➤ Fields of studies: Artificial Intelligence, Neuroscience, Neuroinformatics, Informatics, Robotics, Classical and Quantum Physics, Human Behaviour, Resource Based Economy
Hobbies	Dance Salsa, Bachata, and Techno, play piano, fitness, Krav Maga, read literature (most of all books), solve everyday challenges, learn what the curious mind wants, explore AI models and play around with them

Professional Experience	
2024 Mar. - 2025 Nov.	<p>Full-Stack Engineer at Zühlke Engineering AG</p> <p><i>Further Development of Health Platform allmo.ch</i></p> <ul style="list-style-type: none"> ➤ Backend Development with Node.js, TypeScript, NestJS, TypeORM, and MSSQL ➤ Frontend Development with Node.js, TypeScript, and Next.js ➤ Dependency management with npm ➤ Optimise high-performance build system and CI tasks for TypeScript codebases, and scale monorepo with Turborepo ➤ Integration Testing with Jest ➤ E2E Testing with Cypress ➤ Collaborative programming with Git, IntelliJ, and Azure Repos ➤ Continuous integration and deployment (CI/CD) using a Azure Pipelines ➤ Agile planning and execution of tasks according to Scrum and Behaviour-Driven Development ➤ Fix race condition bugs by specifying tests and implementing the fix by means of Test-Driven Development <p><i>Data Portal for Publication of Economic Data and Bank Statistics</i></p> <ul style="list-style-type: none"> ➤ Backend Development with Java 17, Spring Boot, and OracleDB ➤ Frontend Development with TypeScript and Angular ➤ Dependency management with Gradle ➤ Application Deployment in Windows Server ➤ Agile planning and execution of tasks according to Scrum ➤ Automate provisioning, configuration management, orchestration, and application deployment with Ansible ➤ Continuous integration and deployment (CI/CD) using a Jenkins server ➤ Enterprise search with Apache Solr ➤ Manage messaging and integration patterns with IBM MQ ➤ Unit Testing with JUnit, Mockito, and AssertJ ➤ Integration Testing with Karma, and migration to Jest ➤ E2E Testing with Cypress ➤ Collaborative programming with Git, IntelliJ, and GitLab
2023 Nov. - 2024 Jan.	<p>Full-Stack Developer at Randstad Digital Switzerland AG</p> <ul style="list-style-type: none"> ➤ Backend Development with Python, PyTorch and ChromaDB ➤ Design and development of an AI chatbot solution using advanced NLP (Natural Language Processing) techniques and machine learning models such as GGUF, GPTQ and GGML ➤ Testing and evaluation of LLMs according to quality of responses and inference response time

	<ul style="list-style-type: none"> ➤ Documentation and provision of developer guides for third-party providers and end users ➤ Frontend Development of graphical user interfaces (GUIs), based on frameworks such as Streamlit, to simplify interaction with FinLogGPT, and React ➤ Carrying out user research and usability tests to improve the user experience ➤ Monitoring system performance and carrying out performance analyses ➤ Testing, evaluating and optimising chatbot interactions and response times through continuous adjustments and updates ➤ Deploy an application using Elastic Beanstalk and AWS CICD tools with full automation ➤ Write infrastructure as code using AWS CloudFormation ➤ Implement messaging and integration patterns using AWS SQS, SNS & Kinesis
2022 Jan. - 2023 Juli.	<p>IT Consultant and Full-Stack Developer at SmartConData GmbH</p> <ul style="list-style-type: none"> ➤ Backend Development of „FinExpert“ app with Node.js and MongoDB ➤ Frontend Development of „FinExpert“ app with React, JSX, HTML5, CSS ➤ Backend Development of „IIoT Dashboard“ with Node.js, TypeScript, Sequelize, Socket.IO and PostgreSQL with TimescaleDB extension ➤ Frontend Development of „IIoT Dashboard“ using Vue.js, Tailwind CSS, Headless UI, TypeScript and Chart.js ➤ Refactoring of the backend on Spring Boot, Java 11, WebSockets and MongoDB ➤ Testing the backend with BDD and TDD as well as testing framework JUnit ➤ Configuration of a data broker for communication between services using Apache Kafka and Spring Boot ➤ Configuration of a Data Transformer for the transformation of data coming from the Data Broker using Kafka Streams ➤ Containerisation of all services (FinExpert and IIoT Dashboard) with Docker and docker-compose ➤ Configuration of a reverse proxy using Traefik Proxy ➤ Agile planning and execution of tasks according to Scrum and Behaviour-Driven Development ➤ Agile documentation of team decisions using Agile Decision Log and AsciiDoc
2018 Apr. - 2021 Dec.	<p>Researcher for project „INTIA“ at Cologne University of Applied Sciences</p> <ul style="list-style-type: none"> ➤ Inclusive Prototyping with young people ➤ Design and implementation of a new methodology for fast, playful, behaviour-driven prototyping called "Behaviour-Driven Prototyping"

	<ul style="list-style-type: none"> ➤ Participatory Prototyping of technical solution ideas using Behaviour-Driven Prototyping ➤ Publication of "Inklusive partizipative Technikentwicklung am Beispiel InTiA." ➤ Presentation of "Playful Introduction to Technology and Co-Creative Prototyping" ➤ Configuration of an MQTT server for lightweight communication between IoT end devices on a Raspberry Pi 3+ with a Raspbian operating system ➤ Translation between Zigbee and MQTT communication protocols using "zigbee2mqtt" ➤ Visual programming of application logic with Node-RED ➤ Agile planning and execution of tasks according to Scrum
2018 Mar. - 2018 Sep.	Informatics Tutor at Cologne University of Applied Sciences
2017 Sep. - 2021 Dec.	Research Associate at Cologne University of Applied Sciences
2016 Apr. - 2016 Jul.	MentoRing4Beginners at Cologne University of Applied Sciences
2010 Jan. - 2010 Dec.	Internship in South American Tours S.A. Perú

Vocational Training

2010 Jan. - 2010 Dec.	South American Tours S.A. Perú
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Education

2013 Oct. - 2017 Aug.	Cologne University of Applied Sciences - Informatics (Bachelor), Gummersbach-Germany
2012 - 2013	Preparation for Informatics studies, Trier u. Frankfurt am Main
2009 Mar. - 2010 Dec.	BerufsBildungsZentrum - Alexander von Humboldt, Lima-Peru
2004 - 2008	German School - Alexander von Humboldt, Lima-Peru
2003 - 2004	Ziehenschule (Grammar School - European School), Frankfurt am Main-Germany
2000 - 2003	Santa Cruz Cooperative School, Santa Cruz-Bolivia
1998 - 1999	Aßlar Primary School, Aßlar-Germany
1995 - 1998	Santa Cruz Cooperative School, Santa Cruz-Bolivia

Expertise	
IT Experience since	2017
Soft Skills	Co-creative work in hybrid learning spaces, Storytelling for teaching, Successful communication - successful teamwork, Rhetoric in public speaking, Rhetoric in negotiation techniques
Core Skills	Requirements Engineering, Prototyping, Frontend Development with JavaScript/TypeScript, Next.js, React, Angular and Vue, Backend Development with Node.js, NestJS, and Spring Boot, MongoDB and SQL, Full-Stack Development
Industry Knowledge	Research, Tutoring, Full-Stack Application Development
Programming and Description Languages	Object-Orientated Programming with Java, Java 7, Java 8, Java 11, Java 17, JavaScript/Typescript, JSX, HTML, HTML5, CSS, Arduino, C, Bash, Python, Vim, JSON, UML, UML Component Diagram, Node-RED, AsciiDoctor, AsciiDoc
Methods Know-How	Retrieval-Augmented-Generation, Server-Side Batching, PagedAttention Batching, Continuous Batching, Dynamic Batching, Autoregressive Decoding, KV Caching, Attention Matrix Caching, Semantic Caching, Model Parallelism, Tensor Parallelism, Quantization, Domain-Driven-Design, Behaviour-Driven Development, Test-Driven Development, Unit Testing, Integration Testing, Event Storming, Scrum, Kanban, REST, Git, Branch-Per-Task-Strategy, Continuous Integration, Continuous Deployment, Behaviour-Driven Prototyping, Rapid Prototyping, Plug & Play, Gamification, Co-Creation, Agile Work, Agile Documentation, Microservices Architecture Style, Scientific Work, Supervised Learning, Unsupervised Learning, Semi-supervised Learning, Clustering, Dimensionality Reduction, Principal Component Analysis, Fuzzy Search, Association Rule Mining, „Apriori“-Algorithmus, „FP-Growth“-Algorithmus, „Interesting Rules“, „Decision-Trees“-Algorithmus, Neuronale Netze, K-Means Clustering, Chaos Engineering, TDD'ing Containers, Istio Service Mesh, Intelligent Tutoring System, Domain Model, Expert Model, Student Model, Black Box Model, Glass Box Model, Cognitive Model, Constraint-Based Modeling, Bayesian Model, Bayesian Networks, Tutoring Strategies (Scaffolding, Feedback, Hints, Encouragement), Cycle of Expertise, Learning Outcomes, Bloom's Revised Taxonomy, Conditional Probability, Multivariate Distribution, Conditional Independence, Expert-centric Student Model, Efficiency-centric Student Model, Data-centric Student Model, Collaborative Recommendation, Content-based Recommendation, Alternating Least Squares, Matrix Factorization, Dependency Injection, Inversion of Control, Resilient Distributed Dataset, Root-Mean-Square Error, Digital Sticky Notes, Feature Voting, Agile Decision Log, Docs-as-Code
Operating Systems and Platforms	GNU/Linux, Debian, Ubuntu, Manjaro Linux, macOS, Raspbian, EndeavourOS, AWS
Known Frameworks	Cypress, Jest, PyTorch, Streamlit, LangChain, LlamaIndex, RAG, Spring Web MVC, Spring Boot, Spring Boot Test, Spring Data REST, Spring Data JPA, Vue.js, React.js, Node.js, Gradle, Chart.js, Express.js, Docker, docker-compose, Traefik Proxy, Apache2 Reverse Proxy, Junit, Tailwind CSS, MQTT, Zigbee, Angular.js, SciPy, pandas, Django, Flutter, Growth Mindset, Apache Spark, Dataframe API, Dataset API, Apache Kafka, Kafka Streams
Software & Tools	Text-Generation-Inference, Large Language Models (LLM), Llama 2, LibreOffice, IntelliJ IDEA Ultimate, Visual Studio Code, Netbeans,

	GitLab, Bitbucket, JIRA, Confluence, Docker CLI, Sequelize, MongoDB, PostgreSQL, TimescaleDB, ChromaDB, LaTeX (Overleaf), draw.io, Miro-Board, Zoom, GIMP, Socket.IO, WebSockets, Headless UI, Microsoft Teams, mongoose, Apache Webserver, zigbee2mqtt, Project Lombok, Netflix Eureka Service Registry, Jenkins, SSH, Google Docs, Google Drive, Google Calendar, Ansible, Puppet, Collaborative Filtering with Mlib, Maven, HTTP, Elastic Beanstalk, AWS CICD, AWS CloudFormation, AWS SQS, SNS & Kinesis
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