

Manuel Müller, M.Sc.

*Senior Software Engineer / Cloud Native Engineer /
IT-Consultant*

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I'm an experienced Agile IT Consultant with over 7 years in software development and delivery, skilled in various industries including e-commerce, insurance, tourism, and automotive.

Technical Expertise

AWS, Kubernetes, Java, Kotlin, Spring, Spring Boot, JUnit, Cucumber, REST, MySQL, Postgres, Redis, GIT, Gitlab, Maven, Terraform, Python, Bash, Vue, React, Bootstrap, Tailwind, NodeJS, NextJS, Javascript, Typescript, JQuery, SAP Hybris, SOAP, SCSS, Selenium, Oracle, DynamoDB, ElasticSearch, Ant, Gradle, Jenkins, Tomcat, etc.

Project Management & Tools: Scrum, SAFe, Kanban, Confluence, Jira, Trello

Academic background

Studied Automotive Informatics for my bachelor's degree, and pursued a master's in Computer Science with a focus on AI, pattern recognition, and IT security. Minor in Psychology.

Project History

Software Engineer / Cloud Native Engineer - TUI Infotech GmbH (Travel Industry)

November/2020 - September/2024 - Hannover (remote)

The "PandA" project (Price and Availability) was about the creation of an advanced caching system that facilitates dynamic searches for hotel rates and availability. It also handles the daily processing of hundreds of thousands of offer updates from external sources.

Responsibilities and Achievements:

- **Planning, Development and Testing:** Involvement in the entire software development lifecycle, focusing on Java-based microservices and AWS Lambda functions to ensure robust and scalable solutions.
- **Analysis of Business Requirements:** Conducting thorough analysis, evaluation, and structuring of business requirements
- **Backend Development:** Specializing in building and optimizing high-performance cache systems to support fast search functionalities..
- **Infrastructure Management:** Setting up and extending project infrastructure in AWS, utilizing cloud services to enhance performance scalability.
- **Technology Selection:** Evaluating and selecting appropriate technologies to develop technical concepts and solutions that meet project requirements.
- **Software Consistency and Reliability:** Ensuring the consistency and executability of the software, adhering to high standards of performance and reliability throughout the project lifecycle.
- **Technologies:** Java 21, Spring Boot, Quarkus, REST, Event Driven, Golang, Kafka, Redis, FluxCD, Terraform, Kubernetes, AWS Services (IAM, S3, Lambdas, DynamoDB, EKS, MSK, SNS, SQS, SSM, Secrets Manager, Athena etc.)

I have also taken on the role of **Scrum Master** and have been **managing/preparing and moderating** meetings such as Dailies, Plannings, Refinements, and Retrospectives. Furthermore, I onboarded several new colleagues and mentored junior developers.

Fullstack Developer - Highpace GmbH (IT-Service Sector)

December/2019 - October/2021 - Dachau (Munich)

Developed a web application for Scrum Poker tailored for distributed teams, allowing team members to join digital "rooms" and submit their estimates. Includes a separate "moderator" view displaying the estimates of individual team members.

Responsibilities and Achievements:

- **Frontend and Backend Development:** Developed the frontend using NodeJS and VueJS, integrating with a DynamoDB database. Deployed and versioned on AWS.
- **Technologies:** NodeJS, TypeScript, Express, VueJS, Docker, AWS

Fullstack Developer - BestSecret GmbH (E-Commerce Sector)

January/2019 - October/2020 - Aschheim (Munich)

The project involved the ongoing development of the BestSecret B2C online shop, which specializes in fashion retail. This international project leveraged technologies such as SAP Hybris, Java, JavaScript, TypeScript, and SCSS to enhance both the backend and frontend of the e-commerce platform.

Responsibilities and Achievements:

- **Backend Development and Maintenance:** Developed and maintained backend services, including creating new REST APIs and implementing test-driven development with both integration and unit tests.
- **Continuous Integration and Deployment:** Enhanced and developed new Jenkins pipelines to streamline continuous integration and deployment processes.
- **Data and Configuration Management:** Authored IMPEX scripts to manage data and configuration within the Hybris platform effectively.
- **Frontend Development:** Expanded the website's functionality and design by adding promotional banners, redesigning the GUI, and implementing seasonal features such as special calendars for events like Christmas and Easter.
- **Team Collaboration and Knowledge Sharing:** Regularly prepared and moderated retrospective meetings. Prepared and presented content for Brown Bag Sessions and Sprint Reviews to ensure continuous team improvement and effective knowledge sharing.
- **Technologies:** SAP Hybris, IMPEX, Java, JavaScript, TypeScript, SCSS, Jenkins

Fullstack Developer - R+V Insurance Company (Insurance Sector)

April/2017 - December/2018 - Wiesbaden

This project focused on enhancing the backend and frontend capabilities of an internal insurance platform. Leveraging technologies such as Java, Spring, Spring Boot, Apache CFX,

and Hibernate, the project aimed to develop highly efficient backend microservices. Additionally, the implementation of the GUI was carried out using modern web technologies and frameworks.

Responsibilities and Achievements:

- **Planning and Implementation of Backend Microservices:** Planned and implemented backend microservices using Java, Spring, Spring Boot, and Apache CFX to ensure efficient and scalable backend solutions.
- **Development of New Insurance GUI:** Developed a new Insurance GUI incorporating HTML5 Components and WebComponents to enhance user experience and functionality.
- **Implementation of Additional Insurance GUI:** Implemented another insurance GUI using Java and Vaadin 8, providing robust and interactive interfaces for users.
- **Technologies:** Java, Spring, Spring Boot, Apache CFX, Hibernate, HTML5, WebComponents, Vaadin 8

Mobile and WebView-based Fingerprinting in iOS and Android Apps (Master's Thesis Project)

March/2023 - March/2024 - FAU Erlangen-Nuremberg

For my master's thesis I developed a comprehensive system encompassing backend, frontend, and mobile applications to investigate and evaluate fingerprinting and evaluate fingerprinting techniques.

Responsibilities and Achievements:

- **Backend Development and Deployment:** Developed a backend system using NodeJS and TypeScript with PostgreSQL as the database. Configured a GitLab CI/CD pipeline to build Docker images of the backend and push them to the Docker registry. Set up a Nginx server and deployed the backend on a university server.
- **Frontend Development:** Created the frontend using Bootstrap 5 to ensure a user-friendly and responsive interface. Implemented internationalization (i18n) in English

and German. Included subsites such as imprint, FAQ, data protection, and a subsite with statistics of the ongoing study.

- **Mobile App Development:** Developed an iOS app using Swift and an Android app using Kotlin. Implemented data collection in both apps based on thorough documentation research, focusing on fingerprinting users/devices without requesting additional user permissions.
- **Study Design and Execution:** Conducted a study based on the developed system, analyzing, and presenting the results in my master's thesis.
- **Technologies:** NodeJS, TypeScript, PostgreSQL, Docker, GitLab CI/CD, Nginx, Bootstrap 5, Swift, Kotlin

Bachelor's Candidate - BMW Group (Automotive Sector)

October/2016 - 02/2017 - Munich

For my bachelor thesis at BMW Group Munich, I focused on the topic "Methods for Anomaly and Pattern Recognition in Vehicle Usage and Diagnostic Data." This project involved designing data flows and filtering using KNIME and developing visualizations and dashboards with QlikView.

Responsibilities and Achievements:

- **Design and Implementation of Anomaly Detection Methods:** Designed and implemented methods to detect anomalies and patterns in vehicle usage and diagnostic data, aimed at improving diagnostic accuracy and efficiency.
- **Utilization of KNIME for Data Processing:** Utilized KNIME for efficient data flow management and filtering processes, ensuring streamlined analysis and utilization of vehicle data.
- **Creation of Comprehensive Dashboards in QlikView:** Created comprehensive dashboards in QlikView to visually represent insights and diagnostic results, facilitating intuitive data interpretation and decision making.
- **Technologies:** KNIME, QlikView

The thesis received the top German grade of 1.0, enabling BMW to minimize errors by identifying true causes rather than subsequent errors, and to visualize these findings effectively.

Employments

Since October 2024

Senior IT-Consultant & Software Engineer - Freelancer

January/2019 - September/2024

Senior IT-Consultant & Software Engineer - Highpace GmbH Dachau

April/2017 - December/2018

IT-Consultant & Software Engineer - iS2 AG Marzling

Education

October/2018 - March/2024 (Part Time)

Master of Science (Computer Science)

University of Erlangen-Nuremberg

October/2013 - March/2017

Bachelor of Science (Automotive Computer Science)

University of Applied Science Landshut

Languages

- Deutsch (mother tongue)
- English (fluent)

Certificates

2024 - AWS Certified Solutions Architect - Associate

2024 - Certified Kubernetes Application Developer (CKAD) (The Linux Foundation)

2018 - Certified SAFe Agilist (SA)

2017 - Certified Scrum Master (CSM)

