

Daniel Deusing

Managing Director & Senior Software Engineer

Ribeirão Claro, Brasil

 GitHub |  LinkedIn |  Xing

PROFILE

Results-driven software engineer with **15+ years of experience** in full-stack development, IoT, embedded systems, and enterprise software. Proven track record leading development teams and delivering mission-critical systems for automotive, defense, and industrial clients. Excels at systematic debugging and root cause analysis of complex problems. Experienced in code review with focus on knowledge transfer and team development. Combines hands-on technical expertise with leadership skills – from architecture planning through implementation to production operations. Strong communication skills in German, English, and Spanish. Experienced in agile, distributed teams and international projects.

KEY STRENGTHS

- **Rapid production debugging** – As a company founder I've repeatedly owned urgent production fixes, which trained me to pinpoint and resolve issues fast – often in code I didn't write.
- **Mentoring & two-way knowledge transfer** – I enjoy growing junior engineers, and value how seniors who stay humble learn just as much from a junior's fresh perspective.
- **AI-augmented engineering** – Three years deep in developing with AI – not just coding with it, but configuring it for high-quality, cost-efficient output, while keeping architecture and judgment human-led: concepts over rote syntax.

TECHNICAL SKILLS

Programming	Java, Python, C, TypeScript/JavaScript, C++, Bash
Frameworks	Spring Boot, Angular, Flask, OSGi, Hibernate, JUnit, JPA
Cloud & Infrastructure	AWS, Docker, Linux, Yocto/OpenEmbedded
DevOps & Tools	Git, Jenkins, CI/CD Pipelines, Atlassian Suite (Jira/Confluence)
Databases	MySQL, Oracle SQL, PostgreSQL, Redis, MongoDB
Architecture & Design	Domain-Driven Design, Microservices, Event-Driven Architecture
Protocols & APIs	REST, SOAP, Swagger/OpenAPI, MQTT, WebSocket
Observability	Grafana, Prometheus, ELK Stack, Application Logging
Security	OAuth2, TLS/SSL, LDAP, Identity Provider Integration
Methodology	Scrum, Kanban, Test Driven Development, Requirements Engineering, Code Review
Domains	IoT, Smart Home, Embedded Systems, Linux Drivers, Enterprise Software, Automotive

SELECTED PROJECTS

The following projects comprise my own development work only. Not listed are twiceD Technology GmbH projects that were implemented by employees and that I oversaw in a leadership role without actively contributing to development.

LiMAPS – Real-Time Measurement Analysis Platform

LITEF GmbH (Northrop Grumman) | Lead Developer & Team Lead | 2022 – Present

Leading development of real-time measurement analysis system for inertial navigation systems.

- Architected real-time data pipeline from shared memory ring buffer to web frontend
- Led team of 4 developers; also deployed in LiRED (related platform)
- Integrated C library from LITEF for high-performance shared memory access
- Ongoing maintenance: security updates, performance optimizations, and bug fixes

Tech: Angular, Python, C, Shared Memory, Real-Time Systems

VU3 – Enterprise Vehicle Sales Platform (Volkswagen Group)

Cloudflight GmbH / Porsche Informatik GmbH | Software Developer & Architect | 2021 – Present

Contributing to VW Group's central sales platform serving dealerships across 28+ countries for Audi, VW, Skoda, Seat, Cupra, and Porsche brands.

- 2 years SFO1 team: Stocklist, Add-Ons, Buildability & Actuality Check, Salesperson Management, Performance Board, Vehicle Management, Contract Broker, Sales Folder
- 2+ years SFO4 team (ongoing): Multi-Currency, Special Tax, Porsche Vehicle Integration, DocFlow Integration, Selections, Datahub
- ½+ year SWP team (ongoing): Legacy sales application Italy – Bug fixing, security/regulatory features, maintenance until migration 2027
- 2+ years Technical Architecture Team (ongoing): Cross-domain team defining overall system architecture

Tech: Angular, Java, Spring Boot, Oracle SQL, Redis, Solr, SOAP, REST API, AWS

GigE Vision Linux Driver – High-Speed Camera Interface

PLC2 Design GmbH / Mercedes-Benz & Bosch | Lead Developer | 2021 – 2023

Developed high-performance Linux kernel driver for industrial camera systems used in automotive production.

- Achieved 40 Gbit/s data throughput with zero packet loss and minimal CPU usage
- Implemented kernel-space driver with optimized kernel-to-userspace data transfer
- Collaborated with PLC2 hardware/FPGA team and 20+ Mercedes/Bosch engineers

Tech: C, Linux Kernel, GigE Vision

IHK eFaktura – Electronic Invoice Management

IHK Schwaben | Team Lead & Developer | 2020 – Present

Leading development of electronic invoicing system for IHK member companies.

- Led team of 3 developers building invoice management and SOAP integration
- Integrated with existing IHK backend infrastructure for seamless data exchange
- Ongoing maintenance: security updates, performance optimizations, and bug fixes

Tech: Angular, Java, Spring Boot, MySQL, SOAP

IHK Themen – Exam Topic Management

IHK Schwaben | Team Lead & Developer | 2020 – Present

Leading development of exam topic submission and management platform for apprenticeship exams.

- Built complete workflow for exam topic submission, review, and approval
- Shares backend infrastructure with eFaktura; custom Angular frontend
- Ongoing maintenance: security updates, performance optimizations, and bug fixes

Tech: Angular, Java, Spring Boot, MySQL, SOAP

LiPAD – Portable Precision Alignment App

LITEF GmbH (Northrop Grumman) | Developer | 2020 – Present

Native Android app for portable inertial measurement device used in precision surveying (e.g., oil drilling).

- Built complete Android app with real-time 3D orientation visualization (pitch, roll, azimuth)
- Implemented Bluetooth LE connectivity, offline project management, and CSV export
- Published on Google Play; ongoing maintenance for security and feature updates

Tech: Android, Java, Bluetooth LE

PGC-1000 – High-Speed Grabber Card Software

PLC2 Design GmbH | Developer | 2020

Software development for PCIe-based grabber card used in automotive data acquisition.

- Adapted existing GigE Vision driver (from Athena/Mercedes project) for PGC-1000 hardware
- Developed Qt control application for capture configuration, stream monitoring, and image conversion
- Achieved 40 Gbit/s throughput with ~0% CPU load via DMA transfers

Tech: C, Qt, Linux, PCIe, DMA

Promonco – Enterprise Project & Time Management

twiceD Technology GmbH | Lead Developer & Team Lead | 2019 – Present

In-house developed SaaS platform for project management, time tracking, and business analytics.

- Led core team of 4 developers (8+ total contributors) building full-stack platform
- Implemented LDAP integration, DATEV export, and MS Access data migration
- Deployed internally at twiceD offices; served external customers as SaaS
- Ongoing maintenance: security updates, performance optimizations, and bug fixes

Tech: Java, Spring Boot, Angular, MySQL, Python, Docker, LDAP, DATEV

FPGA Conference Europe – Registration & Booking System

PLC2 GmbH | Backend Developer | 2019 – 2021

Conference registration platform for Europe's leading FPGA developer conference (500+ attendees).

- Developed Spring Boot backend: registration flow, session booking, payment processing
- Implemented real-time seat management, waitlist handling, and conflict detection
- Platform served conference successfully for 3 consecutive years

Tech: Java, Spring Boot, MySQL, REST API

IHK Zeugnischeck – Certificate Verification Portal

IHK Schwaben / IHK München | Developer | 2019 – 2020

Joint development with IHK München for digital verification of vocational training certificates.

- Built secure verification system for employers to validate apprenticeship certificates
- Collaborated with IHK München development team on shared platform architecture

Tech: Angular, Java, Spring Boot, MySQL

4NEEDS – Influencer ICO Platform

4NEEDS | Blockchain Developer | 2018

Developed an ICO platform for influencer marketing based on Blockchain technology.

- Smart contract development for token issuance and trading
- Full-stack development: Angular frontend, Java backend, Python services
- Integration of Blockchain SDK for wallet management and transaction processing

Tech: Blockchain, Angular, Java, Python

Obsidian – Embedded OS & Drivers

PLC2 Design GmbH | Embedded Developer | 2017

Developed complete embedded Linux system for PLC2 hardware with bootloader, kernel, and drivers.

- Yocto-based Linux image with custom kernel and device tree for Xilinx Zynq
- Developed kernel drivers for FPGA communication and hardware interfaces
- Bootloader configuration (U-Boot) and boot optimization for fast system startup

Tech: Yocto, C, Python, Linux Kernel, U-Boot, Device Tree

baseCON – Smart Home & Assisted Living System

KUNDO xT GmbH | Developer & Architect | 2015 – 2017

Co-architected Z-Wave certified smart home platform for elderly care, deployed in housing cooperatives across Germany.

- Co-designed system architecture for embedded Linux gateway (RaspberryPi → ODROID-C2)
- Developed core backend in Java/OSGi: rule engine, alarm system, MQTT cloud integration
- Led Z-Wave certification for 4-button companion device; supported baseCON hub certification
- Integrated Z-Wave, HomeMatic, SML, M-Bus protocols into unified control layer

Tech: Java, OSGi, Angular, Python, C, MQTT, Z-Wave, Yocto

SafeGuard Solutions – Mobile Emergency System

SafeGuard Solutions GmbH | Android Developer | 2015 – 2017

Developed a mobile emergency system with BLE beacons for indoor localization of at-risk individuals.

- Native Android app with Bluetooth LE beacon scanning and trilateration for positioning
- Integration of push notifications and backend communication for real-time alerting
- Optimized power consumption for continuous background BLE scanning
- Integration with external systems for alarm forwarding and data exchange

Tech: Android, Java, Bluetooth LE, REST API

Elaborated Networks – JSON RESTful API for WireGate

Elaborated Networks GmbH | Backend Developer | 2014 – 2015

Developed RESTful API for WireGate smart home gateway to integrate various building automation protocols.

- JSON-based REST API for KNX/EIB device control and configuration
- Integration with existing Python backend of WireGate system

Tech: Python, REST API, JSON, KNX/EIB

myHOA – Smart Home Startup

Own Startup | Co-Founder | 2013 – 2014

Co-founded and led technical development of a smart home startup with custom gateway and integrated home automation.

- Custom embedded Linux gateway (Yocto) with multi-protocol support (Z-Wave, EnOcean, DigitalSTROM, M-Bus, HomeMatic, ZigBee)
- Complete development from hardware selection to backend to Android app (focus: backend)

Tech: Yocto, C, Python, Android, REST API

Visioneering – EnOcean Integration into DigitalSTROM

Visioneering AG | Software Developer | 2011 – 2012

Integration of EnOcean wireless protocol into DigitalSTROM ecosystem as wrapper for virtual DigitalSTROM devices.

- Protocol integration: EnOcean sensors mapped as virtual DigitalSTROM devices
- Developed virtual DSM (DigitalSTROM-Meter) to integrate EnOcean devices into DigitalSTROM system
- Custom web UI for configuration and management of EnOcean devices

Tech: C++, Python, JavaScript, HTML, EnOcean, DigitalSTROM

EMPLOYMENT

2018 – Present	Managing Director & Software Developer twiceD Technology GmbH
2015 – 2018	Managing Director & Software Developer Ingenieurbüro Deusing GbR
2015 – 2017	Academic Staff & Lecturer (Part-time) Hochschule Furtwangen
2010	Software Developer Intern Volkswagen de México
2009 – 2012	Network Administrator (volunteer) Studentenwerk Freiburg, Furtwangen
2009 – 2010	Software Developer (student assistant) IT Data Center Furtwangen

EDUCATION

2014	Master of Science – Computer Science Hochschule Furtwangen University <i>Thesis: Coordination and Combination of Heterogeneous Technologies in Smart Home Context (Grade: 1.0)</i>
2012	Bachelor of Science – Computer Science Hochschule Furtwangen University <i>Thesis: Homogenization of Building Automation via TCP/IP (Grade: 1.3)</i>

CERTIFICATIONS & PUBLICATIONS

2013	Peer-reviewed Publication – Investigation of the Peer-to-Peer Web Standard WebRTC InformatikJournal (2013), Hochschule Furtwangen University, pp. 23-32. ISBN: 978-3-00-0443221-3
2010	ITIL Version 2 Foundation Examination

AWARDS

2014	Baden-Württemberg Goes Mobile – Winner Category: Mobile Housemate 2.0
2013	Elevator Pitch BW Regional Cup – Winner Südschwarzwald Region

LANGUAGES

German Native	English Fluent	Spanish Fluent	Portuguese Intermediate	French Basic
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