

DANIEL GRAUEL

Senior System and Software Architect | Vehicle Computer | Embedded Automotive | Cloud & AI-Assisted Development

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PROFILE

Senior system and software architect with many years of experience in automotive embedded systems, vehicle-computer platforms and hardware-related software development. Specialized in translating complex requirements into robust system and software architectures, coordinating interdisciplinary interfaces and integrating modern software solutions in the vehicle environment. Combines embedded expertise with cloud-software understanding and AI-assisted development methods for the efficient design of future-ready vehicle software.

CORE COMPETENCIES

Vehicle-computer architecture	Embedded systems & hardware-related software	System and software concepts
SW/HW/system interface coordination	Requirements implementation & system analysis	Integration and validation
Cloud software in technical environments	AI-assisted software development	Interdisciplinary automotive development

PROFESSIONAL EXPERIENCE

System and Software Architect for Vehicle Computer

Bosch Engineering GmbH, Abstatt | 05/2017 - present

- Develops system and software architectures for vehicle-computer platforms with a focus on integrability, technical viability and reusability.
- Translates complex technical requirements into aligned system and software concepts for modern vehicle platforms.
- Coordinates interfaces between software, hardware and system functions, reducing technical integration risks in interdisciplinary development environments.
- Shapes modern vehicle-software solutions through architecture work, technical concept development and close alignment with adjacent development areas.
- Introduces cloud-software concepts into technical development environments and supports their application in the context of connected vehicle systems.
- Uses AI-assisted development methods to accelerate analysis, prototyping, code generation and technical concept validation.

Engineer, Hardware-Related Software Development

Bosch Engineering GmbH, Abstatt | 05/2011 - 04/2017

- Developed hardware-related software solutions for embedded systems with a focus on functionality, integrability and system stability.
- Translated technical requirements into robust software components for software-based vehicle and system functions.
- Analyzed, integrated and validated software-based functions in collaboration with adjacent development areas.
- Worked closely with interdisciplinary teams and strengthened the technical compatibility of software components within the overall system.

Thesis Student

Eaton Industries GmbH, Bonn | 09/2010 - 04/2011

- Developed a wireless interface for industrial applications based on Bluetooth 4.0 Low Energy as part of the diploma thesis.
- Designed a technical solution for wireless communication in an industrial environment.

IT Systems Electronics Technician / Freelance Technical Consultant

Astor24 GbR, Vocom GbR, Lion Electronics GmbH | 08/2001 - 08/2010

- Built a solid technical foundation in IT systems electronics, system operations, customer environments and hands-on technical problem solving.

EDUCATION

Diplom-Ingenieur (FH), Electrical Engineering - Focus on Automation
Technical University of Cologne, Campus Gummersbach | 03/2007 - 04/2011

Studies in Industrial Engineering - Focus on Environmental Planning
University of Applied Sciences Trier, Environmental Campus Birkenfeld | 10/2006 - 02/2007

Apprenticeship as IT Systems Electronics Technician
Lion Electronics GmbH, Polch | 08/2001 - 07/2004

TECHNOLOGIES & SKILLS

Programming languages: C, C++, Python, Rust, Bash, Swift

Focus areas: Software and system architecture, vehicle computer, embedded systems, hardware-related software development, cloud-software development

Working methods: Technical concept development, interface coordination, system analysis, requirements implementation, integration, validation, AI-assisted software development

Languages: German: native | English: fluent in business negotiations