

# Ahmed Ragab



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Langenhagen, Germany



Married (2 Kids)



German



A, B, BE, C, CE



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## Summary

Engineering team leader with 15+ years of experience driving innovation in **ADAS and embedded automotive software** across **Europe, Asia, and North America**.

Proven track record of **accelerating development efficiency by 30%**, achieving **ASPICE process maturity**, and **enhancing product quality** through data-driven, cross-functional leadership.

Leads a **global ADAS algorithm development organization** of over **70 engineers** (15 direct reports), managing multiple simultaneous projects for **European, American, Asian, and South American OEMs**.

Expert in translating complex technical challenges into structured solutions and scalable development frameworks that deliver measurable business impact.

Combines deep technical expertise across all ASPICE V-Model phases with **strategic foresight and authentic leadership**—empowering teams, optimizing processes, and fostering innovation aligned with company strategy.

Fluent in **German, English, and Arabic** with extensive experience leading **intercultural, multi-site teams** toward high performance and product excellence.

## Experience

### Team Leader ADAS R&D

ZF Group • Hannover, Germany

04/2024 - Present

- Lead a cross-functional ADAS R&D team of **15 engineers** and support over **70 developers** across multiple international projects serving **European, American, Asian, and South American OEMs**.
- Shortened **pre-development and proof-of-concept cycles by ~30%** through standardized rapid prototyping using MicroAutoBox and data-driven validation.
- Drove **ASPICE compliance** across algorithm development streams and supported GSR/NCAP compliance for multiple customer programs.
- Optimized engineering processes, reducing **problem report volume by 20%**, and implemented proactive test strategies and CI/CD pipelines enabling **biweekly software releases**.
- Supported project management in **effort estimation and resource allocation**, coordinating hundreds of FTEs across multiple ADAS algorithm work packages.
- Collaborate cross-functionally with **system engineering, software architecture, perception/fusion suppliers, testing, and FuSa** teams to ensure product quality and technical alignment.
- Coach, mentor, and evaluate direct reports through annual development plans, continuous feedback, and leadership support initiatives.
- Contributed to the **strategic organization and governance** of ADAS development, defining team structures and aligning work products with overall business objectives.

## Lead Engineer – ADAS Software Development

ZF Group / WABCO • Hannover, Germany

06/2020 - 03/2024

- Lead a **multidisciplinary team of ~30 engineers** (system, software, test, and architecture) in the development of **longitudinal control ADAS features** including ACC, Distance Warning, Intelligent Speed Assistance, and Highway Assist. Achieved **40% reduction in problem reports** by establishing a lean issue-handling process later adopted by additional teams.
- Drove **ASPICE compliance**, closing critical process gaps and ensuring consistency across V-Model development phases.
- Delivered **4 successful SOPs** for major **American, Dutch, Italian, and Chinese OEM programs**, managing technical alignment from concept to production.
- Introduced a **semi-agile communication process**, streamlining interaction between development and project teams for faster issue resolution.
- Served as **primary technical contact** for OEMs and suppliers, leading weekly status reviews and escalation meetings to maintain program alignment.
- Acted as a **bridge between management, system, software, and test disciplines**, ensuring integration quality and adherence to functional safety standards.
- Mentored junior engineers, fostering knowledge transfer and team cohesion during and after the ZF-WABCO integration.

## System Engineer – ADAS & Embedded Software

WABCO • Hannover, Germany

04/2011 - 05/2020

- Developed and rapidly prototyped **radar- and map-based ADAS functions** such as Adaptive Cruise Control (ACC), Autonomous Emergency Braking (AEBS), and Predictive Cruise Control (OptiPace).
- Acted as a technical **bridge between application and BSW layers (AUTOSAR)**, improving system stability and integration efficiency across multiple ADAS features.
- Introduced **rapid prototyping using MicroAutoBox**, accelerating proof-of-concept and early issue detection—later institutionalized as a company standard.
- Played a key role in **OptiPace (Predictive Cruise Control)** development from concept to SOP, covering idea creation, supplier selection, coding, testing, integration, and customer workshops.
- Applied **Model-Based Design (MATLAB/Simulink, Embedded C)** for algorithm implementation and validation under the ASPICE V-Model.
- Executed system-level testing using **HiL and vehicle environments**, ensuring functionality and robustness under real world conditions.
- Collaborated with cross-domain teams to define requirements, optimize control logic, and align with automotive quality and safety standards.

## Engineering Consultant / SW Engineer

Comlet & Altran • Germany

01/2009 - 03/2011

- Delivered embedded software and ADAS function development for leading automotive suppliers, including **Bosch, TKP, and WABCO**.
- Contributed to **radar- and camera-based ADAS systems**, supporting full lifecycle activities from requirements and modeling to vehicle integration and validation.
- Contributed to the application of stereo-camera-based ADAS features, supporting the field data collection and test strategies on different vehicle platforms.
- Tested **Embedded C firmware and control algorithms** for steering and powertrain systems, ensuring compliance with automotive safety standards.
- Designed **GPS-based test environments and simulation models** in MATLAB/Simulink to enable data-driven feature validation and calibration.
- Collaborated in **international, cross-functional teams** following structured ASPICE V-Model processes, strengthening foundations in process discipline and system thinking.

## Fitness Trainer (Part-time)

Freelance • Hannover, Germany

03/2017 - Present

- Lead group and individual training programs (3–30 participants, ages 14–70) focused on functional fitness, safety, and measurable performance improvement.
- Apply **coaching, motivational, and communication techniques** that directly translate to engineering team leadership—building engagement, accountability, and continuous improvement.
- Cultivated strong group dynamics across diverse experience levels, reflecting the ability to guide teams with empathy, structure, and consistency.

## **Skills**

ADAS/AD, Rapid Prototyping (HiL/Vehicle), Algo Development, MbE (MATLAB/Simulink, TargetLink), Embedded-C, Requirements Engineering (DOORS, Windchill), CI/CD (Azure DevOps, Git), Test Strategy & Automation, Process Optimization & Root Cause Analysis, Cross-Functional Team Leadership (70+ Engineers), Mentoring & Performance Management, Intercultural Collaboration, Stakeholder Communication, Azure DevOps, Jira, MicroAutoBox (dSPACE), Vector Tools (CANape, CANalyzer), Project Planning (CPlace), passed CFA Level 1 exam on the first attempt.

## **Education**

### **Project Management Associate (PMA) - Level D**

Hannover Hochschule • Hannover, Germany

01/2020

#### **IPMA - Level D**

Comprehensive understanding of project management principles, including scope, time, and cost management.

### **Mechatronics**

Universität Paderborn • Paderborn, Germany

10/2008

#### **Master of Engineering (M.Eng.)**

Advanced knowledge of control systems, robotics, and automation technologies applied in complex engineering projects.

Master thesis: *“Test und Modifikation von Fahrdynamik-Simulationsmodellen für die Echtzeitanwendung”* – Commercial vehicle modeling and real-time integration, conducted at **Daimler AG**, Stuttgart, Germany.

### **Mechatronics**

Information Technology Institute • Giza, Egypt

07/2006

#### **Post-graduate Diploma**

Comprehensive understanding of integrating mechanical, electronic, and software components to design and develop intelligent automated systems.

### **Electrical, Electronics & Communication Engineering**

Ain Shams University • Cairo, Egypt

08/2005

#### **Bachelor of Science (B.Sc.)**

Comprehensive knowledge of analog and digital electronics including microprocessors and embedded systems. Fundamental principles of electromagnetic theory, semiconductor devices, telecommunications, signal processing, and wireless communication systems.

## **Languages**

Arabic (Native)

English (Fluent)

Deutsch (Fluent)

Spanish (Basic)

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