

Mohammed Almaafi

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Professional Summary

Results-driven Embedded Systems Engineer and Team Lead with a proven record in designing, implementing, and optimizing secure embedded platforms. Skilled in FPGA design, real-time firmware, and hardware/software integration for high-performance R&D; systems. Experienced in leading cross-functional teams to deliver reliable, scalable, and secure embedded solutions that meet demanding engineering and security standards.

Professional Experience

Team Lead – Embedded Systems Engineering

National Company for Telecommunication and Information Security (NTiS), Jeddah, Saudi Arabia | Jul 2025 – Present

- Lead a team of five engineers developing and validating embedded platforms supporting secure communication and control systems.
- Define engineering standards, manage technical roadmaps, and ensure alignment with R&D; objectives and compliance requirements.
- Collaborate with cybersecurity and architecture teams to integrate encryption, key management, and secure boot mechanisms.
- Mentor engineers and oversee design reviews, verification plans, and deployment validation for complex embedded projects.

Embedded Systems Engineer

National Company for Telecommunication and Information Security (NTiS), Jeddah, Saudi Arabia | Oct 2022 – Jun 2025

- Designed and implemented low-level drivers, DMA interfaces, and real-time firmware for FPGA-based embedded systems.
- Enhanced system throughput and reduced latency through firmware and hardware optimizations.
- Executed integration testing, hardware debugging, and performance validation to support system reliability and security.
- Collaborated with R&D; and QA teams to improve development efficiency and ensure compliance with engineering standards.

Education

Master of Science in Electrical & Computer Engineering, King Abdulaziz University – Expected 2027

Bachelor of Science in Electrical & Computer Engineering, King Abdulaziz University – GPA: 4.47 / 5

Certifications

- GSEC – Global Information Assurance Certification (SANS Institute)
- CCNA – Cisco Certified Network Associate
- Lean Six Sigma – Black Belt (Anexas Europe)
- Sensor Fusion – Udacity

Technical Skills

Embedded Systems Design • FPGA (Xilinx) • RISC-V • C / C++ • Python • RTOS • Secure Boot • DMA / AXI • Ethernet / UART • Hardware Debugging • System Integration • Team Leadership • Problem Solving