

Ahmad Ayman Ahmad

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PROFESSIONAL SUMMARY

Motivated Computer Engineering student with strong problem-solving abilities, effective communication skills, and a passion for innovation. Experienced in embedded systems, automotive technologies, and IoT applications, with a solid foundation in real-time systems and microcontroller-based projects using C/C++ and Python. Adaptable and detail-oriented, with proven teamwork, leadership, and critical thinking skills demonstrated through hands-on internships and multidisciplinary collaboration.

PROFESSIONAL EXPERIENCE

Etalex Metal (IT Specialist)

7/2024 – 10/2024 & 7/2025

- Installed and configured systems, software, and networks for 6 departments.
- Diagnosed issues and provided technical support, increasing system uptime by 70%.
- Managed cybersecurity policies and performed system optimizations.

AI Intern (AMIT Learning)

6/2023 & 6/2024

- Developed and optimized 5 AI models, achieving 96% accuracy.
 - Automated evaluation and monitoring pipelines, reducing deployment time by 30%.
 - Enhanced preprocessing and feature engineering workflows.
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EDUCATION

Bachelor of Science in Computer Engineering

Grade: Very Good

9/2020 – 7/2025

- Modern Academy For Engineering & Technology, Faculty of Engineering
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Graduation Project

Alfa Smart Tower – 3rd Place, Best Graduation Project in Computer Department

A multidisciplinary smart building project integrating AI, Embedded Systems, and IoT.

- Designed a smart building system with energy-efficient automation, AI-based predictive maintenance, and smart monitoring.
- Led development of Elevator Control, Smart Mosque, and Digital Donation subsystems using ATmega32 and C.
- Managed UART, I2C communication, LCD displays, PWM motors, sensors, and emergency control.
- Integrated 15+ smart modules for lighting, HVAC, fire safety, parking, and access control.

Courses & Certifications

Advanced Automotive Embedded Systems Diploma – EDGES Academy

11/2024 – 3/2025

• RTOS for Embedded Systems:

Studied RTOS architecture, FreeRTOS features, runtime analysis, OSEK, and AUTOSAR OS.

Project: Designed and implemented a Seat Heater Control System using FreeRTOS on Tiva C, achieving a 10ms response time for real-time control and meeting 95% of AUTOSAR standards.

• Embedded Automotive and AUTOSAR Device Drivers:

Focused on AUTOSAR architecture, device driver development, LIN & CAN communication, and MISRA C coding standards.

Project: Developed Dio and Port drivers for TM4C microcontrollers.

• ARM Architecture based on TM4C Micro-controllers:

Gained practical experience in ARM Cortex-M programming, including SysTick Timer, NVIC, and peripheral interfacing using TM4C.

Full Embedded Systems Diploma – EDGES Academy

7/2024 – 11/2024

Covered C programming, data structures, and embedded systems interfacing using AVR microcontrollers.

Projects:

- **Stop-Watch/Timer:** Drivers: GPIO, Timer, External Interrupts and 7-Segment.
- **Smart Home System:** Drivers: GPIO, ADC, PWM, LM35 Sensor, LCD, flame sensor, and DC Motor.
- **Distance Measuring System (Car Parking System):** Drivers: GPIO, ICU, Ultrasonic Sensor and LCD.
- **Calculator:** Drivers: GPIO, Keypad, LCD.
- **Door Locker Security System:** Drivers: GPIO, Keypad, LCD, Timer, UART, I2C, EEPROM, Buzzer, PIR, and DC Motor.

IOT Applications Development – Mahara Tech

3/2025

- Built MQTT-based IoT systems with real-time monitoring of 1000+ data points.

Additional Training: IEEE Embedded Systems Workshop (2023), Home Automation – ERI (2021)

TECHNICAL SKILLS

Technologies:

- **Embedded Systems:** AUTOSAR (Classic), RTOS (FreeRTOS, OSEK, AUTOSAR OS), AVR, ARM Cortex-M, Device Drivers, Communication Protocols (UART, SPI, I2C, CAN, LIN)
- **Programming Languages:** C & Embedded C, C++, Python, VHDL, HTML, CSS.
- **Software Development:** Object-Oriented Programming (OOP), Data Structures & Algorithms, Frontend Development
- **Database :** MySQL, Microsoft SQL Server.

Tools:

- **IDEs:** Eclipse, Code Composer, Visual Studio.
- **Circuit Design & Simulation:** ModelSim, Proteus.
- **Modelling & simulation:** MATLAB.
- **Productivity:** Microsoft Office Applications.