

# Amir Shetaia

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+20 10 1513 6243 @ AShetaia@std.mans.edu.eg

## Education

### MANSOURA UNIVERSITY

BSc IN MECHATRONICS  
ENGINEERING

2024 Mansoura, Egypt  
• GPA: 3.87

## Links

GitHub [NightBaRron1412/](#)  
in LinkedIn [ashetaia](#)

## Coursework

### UNDERGRADUATE

Embedded Systems Software and  
Development Environments  
Embedded C for embedded system  
Robot Operating System (ROS)  
AWS Machine Learning Foundations  
Artificial Intelligence  
Machine Learning

## Skills

### PROGRAMMING

C/C++ programming • Git • DevOps •  
Embedded Linux • Control Systems  
Design • SOLIDWORKS • Real-Time  
Operating Systems (RTOS) •  
MATLAB/Simulink • Python

## Honors

### IDEAL STUDENT OF YEAR 2022

MANSOURA UNIVERSITY  
Awarded to Exemplary student with  
outstanding academic performance,  
leadership skills, and contribution to  
the university community.

### HUAWEI ICT GLOBAL THIRD PRIZE WINNER

HUAWEI ICT  
Huawei ICT Competition Global 3rd  
Prize winner in Cloud Track,  
encompassing AI, cloud computing,  
big data, and storage expertise.

## Experience

### EMBEDDED SOFTWARE ENGINEERING INTERN

VALEO

July 2023 - Present Smart Village

- Collaborated on CAN communication protocols using CANcase and CANoe, ensuring smooth integration.
- Developed user-friendly GUI tools with WPF, enhancing system interaction.
- Utilized BabyLin for effective automotive software testing and validation.
- Managed CI machines, streamlining deployment and testing processes.

### EMBEDDED SOFTWARE INTERN

SIEMENS DIGITAL INDUSTRIES SOFTWARE

July 2022 - November 2022 Egypt, Cairo

- Participated in developing firmware for automotive embedded systems
- Gained experience in using AUTOSAR, a software architecture standard for automotive electronics
- Contributed to implementing safety-critical functionality and adhering to functional safety standards

### ROBOTICS INTERN

INFORMATION TECHNOLOGY INSTITUTE (ITI)

August 2022 - September 2022 Egypt, Mansoura

- Developed algorithms for robot path planning and control using Python and ROS
- Contributed to the development of a self-driving golf cart

### EMBEDDED SYSTEMS INTERN

INFORMATION TECHNOLOGY INSTITUTE (ITI)

August 2021 - September 2021 Egypt, Mansoura

- Gained practical experience in C programming, Embedded systems concepts, AVR interfacing, the Automotive industry, Embedded systems testing, Embedded systems tooling, and Real-time operating systems.

## Recent Projects

- Developed a real-time obstacle avoidance system for a mobile robot using ultrasonic sensors and AVR microcontroller.
- Designed and implemented a closed-loop control system for a 3-DOF robotic arm using PID algorithm and Arduino board.
- Built an autonomous line-following robot using an array of infrared sensors and Raspberry Pi.
- Developed a wireless sensor network using ZigBee protocol for monitoring temperature and humidity in a greenhouse environment.
- Designed and built a quadcopter drone with a custom PCB using STM32 microcontroller and ESCs.
- Created an interactive robot using a Kinect sensor for gesture recognition and ROS for communication with the robot's hardware.