Maha Touri

Toulon, France | mahat2002@outlook.com | +33 6 05 58 27 56 | 23 years old |
www.linkedin.com/in/maha-touri/ | Mon site web: mahatrs.github.io/

Profile

Engineering student pursuing a double degree in mechatronics and robotics engineering. Seeking a 6-month robotics internship with an interest in embedded systems, starting February 2026.

Education

Seatech Engineering School | Toulon, France — Sept 2024 – 2026

- Pursuing a double degree in Mechatronics and Robotics Systems.

INSA Hauts-de-France Engineering School | Valenciennes, France — Sept 2022 – 2024

- Third and fourth year engineering student in Mechatronic Systems

CPGE Mohammed VI | Kenitra, Morocco — Sept 2020 – 2022

- Two-year intensive pre-engineering preparation course for entrance into engineering schools in Mathematics, Physics, and Industrial Sciences

Experience

Robotics Engineer Intern – Medical Application | CRTA, Zagreb, Croatia — April 2025 – August 2025

- Worked with KUKA robotic arms for ultrasound and biopsy procedures, implementing safe and precise motion strategies. Optimized robot base placement using genetic algorithms to minimize singularities and joint limits and using the ROS manipulability package `reach_ros2` .
- Simulated patient movements by programming one KUKA robot, and developed a PI-controlled strategy enabling a second robot to follow these movements in real time. Designed and 3D-printed a prosthetic phantom support using SolidWorks.

Robotics R&D Intern| IME (Instituto Militar de Engenharia), Rio de Janeiro, Brazil — Sept 2023 – January 2024

- Developed a digital twin of a robotic assembly line with a Yaskawa arm using ROS (Gazebo, MoveIt, RViz) to optimize motion planning and detect collisions prior to deployment.

Projects and Certifications

- **Autonomous Robot Project**: Programmed a mobile robot on dsPIC33 in C (XC16), familiarizing with Object-oriented programming, motor control via PWM, IR sensor management, UART serial communication, use of timers and dynamic interrupts, and implementation of a state machine for autonomous navigation.
- **TurtleBot2 autonomous Navigation**: Developed an autonomous navigation system using TurtleBot2 and ROS, implementing a finite state machine to manage obstacle avoidance based on LIDAR and bumper sensor data.
- **Camera Perception for RoboCup**: Integrated YOLOv8 object detection into the JeVois Pro camera to enhance robotic visual perception for the RoboCup competition as part of the Robot Club Toulon's team.
- **SWARMz4 Project**: Development of a drone–ship battle simulation using ROS2/Gazebo with a Qt interface and autonomous strategies, as part of the international drone swarm competition.
- **Machine Learning with Python**: Completed a FunMooc certification on machine learning using Scikit-learn.

Technical Skills:

- Languages: C, C++, Java, Python(OpenCV, Scikit-learn, IKPY)
- Robotics Tools: ROS (MoveIt/Gazebo/RViz), MATLAB/Simulink, CATIA, SolidWorks, Fusion 360, Eagle, Git, Ubuntu.

Soft Skills

- Problem solving and analytical skills
- Communication and teamwork in a multicultural environment
- Leadership and responsibility management (Treasurer, Robot Club Toulon)

Languages:

- French: Fluent
- English: TOEIC 940/990
- Spanish: intermediate

Interests:

- Basketball, Guitar, Pottery.