Amer Zaoula : Seeking Internship in Robotics / Automatic Control/Electronics

Second-year engineering student at IMT Atlantique
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Education

- **IMT Atlantique- Engineering school** *Since September 2023*
  General Engineering Student Nantes
- **Al QALAM- CPGE (Preparatory Class to Engineering Universities)** *2022-2023*
  Mp(Math and Physics)* Agadir-Morocco
- **REDA SLAOUI- CPGE (Preparatory Class to Engineering Universities** *2021-2022*
  Mpsi(Math, Physics and Engineering Sciences) Agadir-Morocco
- **HOUMAN EL FETOUAKI HIGH SCHOOL** *2020-2021*
  Moroccan Baccalaureate, with honors- Specialties: Mathematics Sciences Agadir-Morocco

Professional Experience

- **AptiSkills(Project order company)** *Since September 2024*
  Excavator Robot Nantes

  – Worked in team of 8
  – Simulation of the Excavator Robot Under Applied Force Using Matlab
  – Modeling of the Excavator Robot in Solidworks
  – Simulation of the Excavator Robot in Simulink
  – Implementation of PID control in Arduino

ACADEMIC PROJECTS

- **Turtle ROS** *February 2025- March 2025*
  Creating a Turtle simulation in ROS and controlling it using IMU

  – Worked in team of 5
  – Reading data from an accelerometer and a magnetometer
  – Creating a Publisher and Subscriber in ROS to transfer data from Arduino to Raspberry Pi
- **Thermometer robot(Additive manufacturing)** *January 2025*
  Building thermal robot that display the room temperature in the form of a clock face

  – Worked in team of 4
  – Designing the robot body using SolidWorks
  – 3D printing and assembling the robot body using plexiglass that is cut and wood with numbers engraved by laser
  – Reading temperature from sensor using an I2C connection
  – Programming the feedback control loop on Arduino
- **3D IMAGER** *March 2024- April 2024*
  Creation and Programming of a 3D Imager

  – Worked in team of 5
  – Programming binary code technique in Python
  – Calibration of the transmitter(Epson projector) and receiver(Camera)
  – Successful construction of a 3d image of the object
- **Learn by Doing** *September 2023- January 2024*
  Creation of electronic systems

  – Worked in team of 4
  – Soldering/assembling electronic systems
  – Systems created: automatic lighting, automatic winch, metal track follower robot

Personal Projects

- **Arduino Quad-copter(Drone)**

  Programming and Creation of an Arduino Drone March 2024 - May 2024

  – Programming on Teensy 4.0 board using Arduino software
  – Reading data from IMU(Gyroscope) unit, pressure sensor, GPS and Magnetometer
  – Using SPI, I2C, UART, and CAN bus to establish connections with sensors
  – Designing the drone's electronic chassis to carry all the sensors in EasyEDA
  – PID controlling and Calibration

Technical Skills and Interests

Languages: Arabic(Native), French(C1), English(C1), Spanish(A2)
Programming Languages: Python, Java (Object-oriented programming), Matlab/Simulink , C, C++ , SQL , ROS
Software: Office 365, Git, Latex, Arduino, Easy Eda, SolidWorks , Vscode, Linux
Interests : Badminton , Volley Ball, Tennis , Pool(Billiard)
Soft Skills: Punctuality, perseverance, teamwork, stress resistance , scientific curiosity , methodical

Certificates

- **Coursera** Robotics: Computational Motion Planning *University of Pennsylvania*
- **Coursera** Robotics: Aerial Robotics (Including SLAM) *University of Pennsylvania*
- **Coursera** Robotics: Estimation and Learning(Detection and localization algorithms) *University of Pennsylvania*