

# FOUED BENIDIR

Final-year Master's in Engineering student specializing in Medical Systems Engineering, seeking a 6-month internship in healthcare robotics and AI development.

+33 679295413  
fouedbenidir24@gmail.com

## EDUCATION

- 2022-2025 • Engineering Cycle major Medical Devices
- ESIGELEC - Rouen, FRANCE
- 2020-2022 • Classe préparatoire intégrée - PSI
- ESIGELEC - Rouen, FRANCE
- 2020 • Baccalauréat major Physic-Chemistry
- Lycée Saint Jean Baptiste de la Salle, Rouen

## PROFESSIONAL AND ACADEMICS EXPERIENCES

**Research Trainee – Project MR-IQ, TransRad team, Luxembourg Institute of Health (LIH)**  
*July – August 2024 | Supervisor: Dr. Keunen | Co-author of a scientific reseach paper (publication expected in 2025)*

- I handled medical data (DICOM, CT-scans) and developed a dataset of 600 labeled images by applying various transformations (blur, contrast, artifacts).
- I contributed to conducting a clinical study where experts evaluated image quality using the MR-IQ metric, work that led to co-authoring a research paper (publication 2025).

**Chief Project – Final year project**  
*October 2024 – February 2025 | Collaboration with a start-up and an ENT surgeon | First prize at Med'Ing Hack 2024 competition*

- I supervised 5 engineering students on the development of a proof of concept (PoC) for an implantable solution to track deglutition movement. I worked with an Arduino Uno and IMUs to get acceleration data and Python to plot them

**Research Project – Robot Controlled by Voice Recognition and Computer Vision | November 2024 – January 2025**

- Conducted research, authored a scientific paper, and developed Python solutions (Vosk, YOLOv8, RTDE) for voice and vision-based control of a 30K€ UR5e collaborative robo

## SKILLS

### IT Skills:

- Programming: Python (OpenCV, YOLOv8, RTDE), C/C++, MATLAB
- Development Tools: Git, GitHub
- Operating Systems: Linux (Ubuntu), Windows
- Norms SO 13485, ISO 14971

### Electronics & Robotics:

- Microcontrollers: Arduino, Sensors (IMU, Ultrasonic, Infrared)
- Industrial Robotics: Universal Robots (UR5e)
- Signal Processing
- Standards : EN ISO 10218, EN 61508

### Mathematics & Physics :

- Linear Algebra, Fourier Analysis, Probability Statistics
- Solid Fluid Mechanics, Dynamics
- Electromagnetism, Thermodynamics

### Languages:

- French: Native
- English: B2-C1 level (TOEIC 850)
- Spanish: B2

### Soft Skills:

- Autonomy, Analytical thinking
- Strong intellectual curiosity
- Teamwork & Project Management

## INTRESTS

### Sports (Individual and Team)

- Football: 8 years in a club, team captain, president of the football association ASFT76.
- Judo: 12 years in a club, youth competition.

### Scientific and Other Interests

- Technology: Passionate about new technologies, with certifications on Coursera.
- Competitive Spirit: Winner of the Med'Ing Health Hackathon 2024, organized by Aptar Pharma.
- Continuous Learning: Active reader of scientific literature (Springer, Nature).
- Music: Played guitar at the conservatory for 7 years.