FOUED BENIDIR

Final-year Master's in Engineering student specializing in Medical Systems Engineering with a major in AI, I am seeking a 6-month internship in AI development.

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♥ FouedbENIDIR

EDUCATION

2022-2025 • Engineering Cycle major Medical Systems

ESIGELEC - Rouen, FRANCE

2020-2022 • Integrated Preparatory Class – PSI track (Physics and Engineering Science)

2020 • Baccalauréat in Physics-Chemistry

ESIGELEC - Rouen, FRANCE

Lycée Saint Jean Baptiste de la Salle, Rouen

PROFESSIONAL AND ACADEMIC EXPERIENCES

Research Trainee - Project MR-IQ, TransRad team, Luxembourg Institute of Health (LIH)

 $July-August\,2024\mid Supervisor: Dr.~Keunen\mid Co-author of a scientific paper to be published in 2025$

- Preparation of a medical dataset into h5 architecture using Python algorithms for image quality assessment.
- I processed 600 DICOM abdomen/brain scans (MRI, CT-scan) by applying controlled degradations (blur, contrast, artifacts) on Linux/VScode, supporting a clinical study using MR-IQ metrics that resulted in co-authored research (publication 2025).

Personal Project – CNN for lung lesion segmentation

January 2025 – February 2025

I developed a CNN based on U-NET architecture using Python (TensorFlow) on WSL to segment lesions from a
public Covid-19 CT scan dataset from Kaggle, achieving 99.20% accuracy and a Dice coefficient of 0.59 on the test
set.

Scholar Research Project - Robot Controlled by Voice Recognition and Computer Vision

November 2024 – January 2025

- I conducted bibliographic research using academic repositories (ArXiv) and search engines (Google Scholar) in order to design a viable multimodal approach coupling voice recognition (Vosk), computer vision (YOLOv8) and robot control (RTDE, 30K€ UR5e).
- I authored an article for the school journal (available on my Portfolio) describing results (98% precision for voice recognition, 100% object recognition) and potential improvements for future experiments (robot part).

SKILLS

IT Skills:

- Programming: Python (OpenCV, YOLOv8, RTDE, Tensorflow, PyTorch), C/C++, MATLAB.
- Development Tools: Git, VScode.
- Operating Systems: Linux (Ubuntu), Windows.

Certifications and norms:

- Supervised Machine Learning: Regression and Classification (Coursera).
- Advanced Learning Algorithms (Coursera).
- Google Project Management (Coursera).
- Norms ISO 13485, ISO 14971.

Mathematics & Physics:

- Linear Algebra, Fourier Analysis, Probability and Statistics, Time Series.
- Solid and Fluid Mechanics, Dynamics.
- Electromagnetism, Thermodynamics.

Languages:

- French: Native.
- English: Professional proficiency.
- Spanish: Upper-intermediate proficiency.

Soft Skills:

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

INTERESTS

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.