



# AHMED-RAFIK-EL MEHDI BAAHMED

STATE ENGINEER IN COMPUTER SYSTEMS  
ENGINEERING & DOCTORAL RESEARCHER (PH.D)

## BIOGRAPHY

- Computational Efficiency of Federated Learning techniques on Edge-Cloud Infrastructures Researcher
- Computational Intelligence & Deep Learning keen, ML Developer
- IoT Developer & Solution Architect
- Python developer
- Team work, Creative, motivated, ambitious.

## INTERESTS

- Federated Learning
- Edge-Cloud Infrastructures
- Computational Efficiency and Energy Management
- Internet of Things (IoT)
- Data Science
- Embedded systems
- Astronomy & astronautics lover
- Traveling, learning and reading, sport, music, drawing, gaming.

## PROJECTS

- ESI Weather (Mar - Sept 2020)
- HEALTHLINE (Mar - Jul 2021)
- Lectio (Dec 2021 - Feb 2022)
- Màtia-ArtificialEye (Apr - Jul 2022)
- Alzheimer.AI (Nov 2022 - Feb 2023)
- E-GNNExplainer (Feb - Jul 2023)

## EDUCATION

- Doctoral Researcher (Ph.D) at ENSA working at CESI LINEACT - France
- State Engineer in Computer Systems Engineering with a Master's Degree graduated from The Higher School of Computer Science 08 May 1945 - Sidi Bel Abbes - Algeria - in July 2023
- Baccalaureate in Maths 2018

## CONTACT

- ahmedrafikelmehdibaahmed@gmail.com
- [eagleeye1107.github.io](https://github.com/eagleeye1107)
- [EagleEye1107](https://www.linkedin.com/in/Ahmed-Rafik-El-Mehdi-BAAHMED/)
- Ahmed Rafik El-Mehdi BAAHMED

## EXPERIENCE

- Doctoral Researcher (Ph.D) at ENSA working at CESI LINEACT - France
- E-GNNExplainer Paper Acceptance and Participation at XKDD 2023: 5th International Workshop on eXplainable Knowledge Discovery in Data Mining.
- Deep Learning intern at LIRIS Lab (DM2L) - INSA Lyon (Feb - Jul 2023).
- Project Developer & Manager of "Alzheimer.AI" a Computer Vision and Deep Learning-Based "Early Detection of Alzheimer's Disease System" using multiple approaches (**Nov 2022 - Feb 2023**).
- Project Manager of "Màtia-ArtificialEye" project which is a Computer Vision and Deep Learning-Based support system for Visually Impaired People in an outdoor environment (**Apr - Jul 2022**).
- Practical internship at GSH "Groupe des Sociétés HASNAOUI" (**Sept 2021**).
- Web Developer and Quality Insurance Manager of "HEALTHLINE" project.
- Participation in **CO'C2021 (Mar 2021)** and **CO'C2022 (May 2022)**.
- Cybersecurity Instructor & Trainer in The Alphabit Cybersecurity Cell.
- Project Manager of "Esi Weather" an AI weather station (**Mar - Sept 2020**).

## CORE COMPETENCIES

### IT KNOWLEDGE & SKILLS

- Neural Networks Development (GraphNN, CNN, MLP, FFNN).
- Pytorch and Keras frameworks.
- Supervised & Unsupervised Machine Learning approaches.
- Computational Intelligence paradigms (DNN, FL, ANFIS, GA, GP)
- Explainable Artificial Intelligence methods (XAI)
- Computer vision & Image processing.
- Graph Theory & Geographic Information Systems.
- IoT Development and Solution Architecture (Edge-Fog-Cloud).
- WSN, LoRa, Sigfox, MQTT Protocol, Kafka Broker, IoT Cloud Platforms.
- Arduino & Raspberry Pi.
- Problem Solving & Automating tasks.
- Programming : Python, C/C++, SQL / DevOps : Git, GitHub, Docker.

### SOFT SKILLS

- Leadership & Project management.
- Critical thinking & Problem solving.
- Communication & Public speaking.
- Flexible & Dynamic.
- Time management & Punctual
- Languages :
  - Arabic
  - French
  - English

## CERTIFICATES

- Certificate of participation in the international conference **CO'C2022**.
- Certificate of participation in the national conference **CICT'2022**.
- Certificate of participation in the international conference **CO'C2021** (paper link : [HAL](#)).
- Introduction to Bash Shell Scripting with **Coursera Project Network**.
- Elements of Artificial Intelligence.
- Managing Machine Learning Projects with Google Cloud.
- Penetration Testing, Incident Response and Forensics.
- Cybersecurity IT Fundamentals Specialization with **IBM**.