

# Sniha Razi

Computer engineering student, in the 3rd year of the engineering cycle at ESPRIT, specializing in Data Science

+216-26 995 933

✉ razi.sniha@esprit.tn

✉ razisniha@gmail.com

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## EDUCATION

- **ESPRIT – Private School of Engineering and Technology** 2020–2025  
*National Engineering Degree in Computer Science – Specialization: Data Science* Tunis, Tunisia
- **Lycée El Wafa** 2020  
*National Baccalaureate Diploma in Technical Sciences* Tunis, Tunisia

## EXPERIENCE

- **Final Year Project Internship** February 2025 – July 2025  
*SFM Technologies* Tunis  
– Intelligent Energy Consumption Optimization System for Enterprises.
- **Summer Internship** June 2023 - August 2023  
*"TEKRU Technologies"* Tunis  
– Developed a cinema management application enabling ticket booking and schedule management.
- **Stage d'ingénieur** July 2024 - August 2024  
*"CodiX"* Tunis  
– Developed a banking application in Python for account management, loan prediction, and customer security (facial recognition and signature verification).

## PROJECTS

- **Final Year Project – Intelligent Energy Consumption Optimization System** February 2025 – July 2025  
– Designed and implemented an AI-based system to reduce corporate energy consumption through predictive modeling and intelligent analysis.  
– Built forecasting models using LSTM and XGBoost to predict power usage and identify inefficiencies.  
– Developed an interactive Power BI dashboard for real-time energy monitoring and scoring by department.  
– Integrated a specialized chatbot using a RAG-based architecture to provide energy-saving recommendations.  
– Deployed the system for live evaluation, achieving measurable energy savings in simulation.  
**Tools:** Python, TensorFlow, XGBoost, Power BI, Flask, Pandas, Scikit-learn, SQL, Git
- **Dyslexia Project :** September 2024 - November 2024  
– Development of a website for dyslexic children, featuring exercises with Unity integration. Implemented models for image generation, voice-to-text, and text-to-voice conversion. Created a dashboard for parents to track the child's progress using Power BI and integrated facial recognition with a Django interface.  
**Tools :** Git - Power BI - SQL - machine learning - deep learning - Jupyter - visualStudio - OpenCV - TensorFlow - Python - Django.
- **Development of a chess-playing robot :** September 2024 - November 2024  
– Design and development of a chess-playing robot. The project includes image capture to detect the chessboard's state, advanced analysis to recognize the positions of the pieces, and the integration of the Stockfish chess engine to calculate the best moves. The robot's movements are then executed via an automated interface, combining artificial intelligence and robotics. This project highlights my skills in computer vision, image processing, software integration, and solving complex problems.  
**Tools :** Python, OpenCV, Stockfish, TensorFlow/Keras, Arduino
- **Risk Management Recommendation System (September 2024 - Present)** November 2024 - January 2025  
– Development of a conceptual graph-based recommendation system for project risk management. Implemented a knowledge graph to model risk-related entities and their relationships. Applied link prediction techniques to suggest potential risks and mitigation strategies  
**Tools :** Python, Neo4j, NetworkX, Scikit-learn, Flask, Power BI

## SKILLS

- Programming Languages:** Python, C, C++, Java, PHP, JavaScript, CSS, HTML, Pascal, SQL

**Web/Mobile Frameworks:** Django, Flask, React, Flutter, REST APIs,
- Firestore

**Database:** MySQL, PostgreSQL, Oracle (PL/SQL), SQL Server, NoSQL (MongoDB)
- Data Science / AI:** Machine Learning, Deep Learning, TensorFlow, Keras, Scikit-learn, XGBoost, NLP, RAG-based Chatbots

**Computer Vision:** OpenCV, PyTorch,

Scikit-image, Image/Video Processing  
**IoT / Robotics:** Arduino, ESP32, Sensors, IoT Data Acquisition, Robotics Control  
**LANGUAGES**

**Tools / IDEs:** Jupyter, Visual Studio, CodeBlocks, MPLAB, Arduino IDE, QT, VMware, VirtualBox, Power BI, Git, GitHub, Docker

**Operating Systems:** Windows, Linux  
**Others:** Agile, UML, Data Visualization, Dashboard Development, REST API Integration

**Arabic:** Native Language

**French:** Level B2

**English:** Level B2