

# LACHGAR Ridouan

Engineering Student in Data Science, Artificial Intelligence, and Digital Health

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## Education

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### ENSAM Rabat

- *Data Science, Artificial Intelligence, and Digital Health (INDIA&SD)* *Sept 2024 – Present*
- o Relevant Courses: Software engineering, Digital health, A.I, Business intelligence, Robotics, Machine learning, Data science, Big data, Cloud computing, IoT, Blockchain
- *Preparatory Classes* *Sept 2022 – August 2024*
- o Relevant Courses: Mathematics, Probability and Statistics, Electricity, Physics, Computer Science

## Experience

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### Automation Intern at ONEP (Office National de l'Eau Potable)

*Rabat, July 2024*

- o Developed and programmed automation algorithms for process control using ST and Lader.
- o Implemented data acquisition systems to collect and analyze performance metrics of pumping stations.

## Projects

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- o **BMP Filters**  
Developed a program to apply various filters (e.g., grayscale, blur) to BMP images using C language.
- o **Finance Flask Project**  
Created a web application using Flask to manage financial transactions, including user authentication, transaction tracking, and data visualization.
- o **Tic-Tac-Toe Minimax**  
Implemented a Tic-Tac-Toe game using the Minimax algorithm to ensure optimal moves against any opponent.
- o **Traffic Sign Recognition**  
Built a neural network model to classify traffic. The project involved training the model, and evaluating its performance on a test set.
- o **Crossword Puzzle**  
Designed a program to generate and solve crossword puzzles using backtracking algorithms, enhancing problem-solving skills.
- o **Minesweeper**  
Created a Minesweeper game, utilizing algorithms to ensure accurate mine placement and user interaction.

## Technologies

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- o **Programming Languages:** Python, SQL, Java, C, C++
- o **Tools & Frameworks:** NumPy, Pandas, Matplotlib, Seaborn, ETL, PostgreSQL, Scikit-learn, TensorFlow, OpenCV, Pillow, Git & Github

## Courses and Certifications

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- o **Harvard's CS50x:** Introduction to Computer Science
- o **Harvard's CS50 AI:** Introduction to Artificial Intelligence with Python
- o **DataCamp:** Data Engineer Track & Datacamp Certified Associate Data engineer & Data Science Track

## Extracurricular Activities

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Vice Head of Sponsoring & Logistics

*CCS, 2023*

