

# IHSSANE BAMMAD



## PROFILE

Second-year engineering student at École Centrale Casablanca, seeking a three to four-month internship starting April 21 in the field of data science and artificial intelligence.



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ihssane2002



ihssane bammad

## EDUCATION

**General Engineering Student/ Courses:** Probability & Statistics, Coding Week, Object-Oriented Programming & Modeling, Introduction to AI.

**Bachelor's Degree in Electronic Engineering & Telecommunications/Courses:** Industrial Computing

**University Scientific and Technical Studies Diploma/Courses:** Computer Science, Algorithms & Programming, Descriptive Statistics & Probability



Ecole Centrale Casablanca

2023 - 2026



FST Beni Mellal

2020 - 2023



FST Beni Mellal

2020 - 2022

## PROFESSIONAL EXPERIENCE

### Internship – IDSUD Energie

October 2024 - January 2025

Designed a predictive maintenance model for the Neholight hybrid system, implementing Isolation Forest and Gradient Boosting algorithms to detect and prevent system failures.

### Operator Internship – ONEE

July 2024 - August 2024

Development of a web application using CNN models for incident detection and automatic report generation, aimed at optimizing the maintenance of Low Voltage (LV) networks.

### Internship – NOMAC

April 2023 - June 2023

Designed and supervised a meteorological station at the NOOR 1 solar plant in Ouarzazate, analyzing real-time data to anticipate performance variations due to weather conditions.

## TECHNICAL SKILLS

- Data Analysis & Visualization: Matplotlib, Seaborn, Power BI
- Machine Learning & AI: Python, Hyperparameter Optimization (GridSearchCV), Random Forest, SVM
- Deep Learning: TensorFlow, Keras
- Big Data: Google Cloud Platform, BigQuery
- Simulation & Modeling: MATLAB
- Database Management: SQL (Access), NoSQL (MongoDB)
- Programming: Python, C, Object-Oriented Programming (OOP)
- Web Development: HTML, CSS, JavaScript, React, Flask
- Project Management: ProjectLibre
- Diagramming & Schematics: Draw.io

## PROJECTS AND ACHIEVEMENTS

### Surface Segregation Modeling in Alloys| AI-Based Scientific Project

Developed and compared two AI models: a classic Neural Network (NN) and a Graph Neural Network (GNN) to predict surface segregation in ternary alloys.

### Supervised Colon Cancer Classification

Applied supervised classification models (Logistic Regression, SVM, k-NN, Decision Tree, Random Forest) to distinguish between normal and cancerous samples using gene expression data.

### Coding Week Project

Designed a movie recommendation system based on collaborative filtering using ALS and SGD models for personalized suggestions.

### TDLOG Project

Developed a waste management website using React, Flask, and SQL to optimize waste collection and tracking

### "Learning by Doing" Project

Developed an interactive platform using HTML, CSS, and JavaScript to enhance student engagement in lectures, integrating quizzes to boost participation.

### Object-Oriented Programming & Modeling

Developed a web-based platform for optimizing school processes and improving management efficiency.

## COURSERA CERTIFICATES IN TECHNOLOGY AND ARTIFICIAL INTELLIGENCE

- Google Cloud Big Data and Machine Learning Fundamentals
- Deep Learning Specialization
- Client Needs and Software Requirements
- Introduction to Artificial Intelligence (AI)
- Generative AI: Introduction and Applications
- Programming Foundations with JavaScript, HTML, CSS
- Software Engineering: Modeling Software Systems using UML
- Data Science Methodology

## ENGAGEMENT ASSOCIATIF

**Débat Club Centrale Casablanca**  
Communication Manager

**Quanta Club Centrale Casablanca**  
Training Manager

## LANGUAGE SKILLS

**French:** Professional Level (DALF C1)

**English:** Intermediate Level

**Arabic:** Native Language

## PROFESSIONAL QUALITIES

- Seriousness & Commitment
- Adaptability & Creativity
- Teamwork & Communication
- Time Management & Organization