# Oussema Harrabi

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# **Objective**

First-year ICT engineering student at SUP'COM, ranked 75th out of 1200+ in Tunisia's national engineering exam, with a strong passion for Artificial Intelligence and Machine Learning. I excel in building AIdriven predictive models and web applications, actively exploring their real-world applications through innovative projects, particularly in e-commerce. Motivated by entrepreneurship and innovation, I aim to merge AI with entrepreneurial solutions to create impactful technologies. With high communication skills and a collaborative spirit, I thrive in team environments and am seeking an AI summer internship to contribute to a company's mission of advancing cutting-edge AI solutions.

#### **Education**

## **ICT Engineering Student**

Sept 2024 – Present

SUP'COM – Higher School of Communication of Tunis, Tunis, Tunisia

- Expected Graduation: 2027
- o Relevant Coursework: Data Structures and Algorithms, Web Development, Convex Optimization.

## Pre-engineering Studies in Math, Physics and Chemistry

Sept 2022 - Jun 2024

IPEIM – Preparatory Institute for Engineering Studies of Monastir, Tunisia

o Ranked top 75 out of 1200+ in national engineering entrance exam.

# **Projects**

# Advanced Ensemble Learning for Housing Price Prediction

Ian 2025

- Developed a stacked regressor (Random Forest, ExtraTrees, KNN, SVR, meta-model: Ridge) using RandomizedSearchCV, achieving MSE of 0.19 and R<sup>2</sup> of 0.86 on the California Housing dataset, outperforming XGBoost.
- o Engineered features with pandas and visualized correlations with Seaborn.

#### **Breast Cancer Diagnosis Prediction**

Dec 2024

- Built a logistic regression model on the Wisconsin dataset, achieving 95% accuracy after cleaning and scaling with StandardScaler.
- Visualized feature distributions with Seaborn heatmaps.

## **E-commerce Customer Spending Prediction**

Nov 2024

- Created a linear regression model to predict yearly spending, achieving RMSE of 65.12 and R<sup>2</sup> of 0.85.
- Identified session length as a key predictor using Matplotlib visualizations.

## **E-learning Video Content Creation Internship**

Jul 2024

 Created educational videos to teach baccalaureate science subjects, ensuring clear understanding for students, while managing a team as group leader during a summer internship.

#### **Extracurricular Activities**

#### **Training Manager**

Mai 2025 – Present

IEEE CS Chapter – Sup'Com SB, Tunis, Tunisia

o Organize AI/ML workshops for 50+ members, enhancing technical skills.

#### **Media Manager**

Oct 2024 – Present

Team Club, SUP'COM, Tunisia

Led media coverage for the enterprise forum of SUP'COM, managing content for 1,000+ attendees.

#### **Prosthetic Limb Initiative**

PACTE Project, SUP'COM, Tunisia

Jan 2025 – Apr 2025

• Led a 4-month project to provide prosthetic limbs to amputees, collaborating with manufacturers.

Ambassador League of Coders & Geeks Hack and Go DataScience Tunis, Tunisia Nov 2024 – Dec 2024

Promoted coding competitions, engaging 200+ participants.

Co-founder, Nebras Debate Club

*Jan 2024 – Mar 2024* 

IPEIM, Monastir, Tunisia

• Led 5+ sessions to enhance soft skills for 50+ students; club remains active.

**Student Delegate** 

Mar 2023 – Jun 2024

IPEIM, Monastir, Tunisia

o Advocated for student interests, improving academic communication.

# **Competitions & Awards**

# PEEC - Student-Entrepreneur Status (Level 1)

*Mar 2025* 

o Granted for an AI-powered e-commerce comparison platform concept.

# ZEN & CIS Challenge – TSYP 2024, 2nd Prize

Nov 2024

o Pitched an accessible e-commerce solution idea for ZEN , placing 2nd nationally.

# WIEmpower Hackathon – IEEE WIE Sup'Com SB

Oct 2024

 $\circ~$  Designed a search engine for women-led businesses in a 20-hour ideathon.

#### HACK4IOT 2023 (Ideathon), 2nd Prize

Jun 2023

o Won 2nd place for a scalable IoT solution in the healthcare Industry.

#### **Technical Skills**

**Programming:** Python, C/C++, JavaScript

AI/ML: Scikit-learn, pandas, NumPy, Matplotlib, OpenCV

**Web Development:** HTML, CSS, React.js **Tools:** Git, VS Code, CLion, Packet Tracer

**Languages:** English (Fluent), French (Fluent), Arabic (Native)

#### **Interests**

Passionate about exploring cutting-edge AI technologies, including Large Language Models (LLM), Retrieval-Augmented Generation (RAG), Deep Learning (DL), Chatbots, Computer Vision, and Data Analysis. Actively engaged in learning about Generative AI and AI Ethics to develop innovative and responsible AI solutions.