



# AYA KHALIFI

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## SUMMARY

Second-year Master's student in Artificial Intelligence and Data Science, with a strong foundation in full-stack software development acquired during my bachelor's degree. This dual expertise enables me to work on both application development and machine learning/data analysis. Passionate about digital innovation and real-world AI applications, I am currently seeking a PFE internship to deepen my skills through practical projects, combining the rigor of full-stack development with the power of modern AI and machine learning models.

## WORK EXPERIENCE

### Final-Year Internship – Fromageries Bel Maroc, Tangier

April 2024 – June 2024

Designed and developed a full-stack web application for IT asset management and monitoring using Python/Django, integrating interactive dashboards for reporting and performance tracking.

### End-Year Internship – Sweet Berry, Larache

july 2025 – August 2025

Designed and developed an end-to-end system for dataset annotation, creation, and classification of fresh vs rotten fruits using Convolutional Neural Networks (MobileNetV2) and YOLOv8 for real-time detection. Integrated a user-friendly interface with Streamlit and image processing via OpenCV.

## PROJECTS

### TheMLHub – Machine Learning Platform

Developed an interactive Django-based platform enabling dataset import, preprocessing, visualization, model selection (SVM, Random Forest, Naive Bayes, KMeans, RNN), and performance dashboards.

### Real-Time Amazon Sentiment Analysis Pipeline

Big Data pipeline using Kafka, Spark, MongoDB, Docker, FastAPI and React.Web scraping, NLP preprocessing, and real-time ML-based sentiment insights.

### CancerUX – Intelligent Cancer Treatment Assistant

Developed an NLP application based on fine-tuned BioBERT with a Flask interface. Provides answers to questions on treatments and side effects using specialized medical datasets.

### Parkinson's Disease Prediction

Developed predictive models using Logistic Regression, Random Forest, and LightGBM. Applied Pearson correlation analysis for feature selection and leveraged shape-based feature extraction, with SMOTE used to address class imbalance.

## EDUCATION

2024-2026 (Outgoing)	Master's in Artificial Intelligence and Data Science at <b>Faculty of Science and Technology, Tangier</b>
2023-2024	Bachelor's in Application Development Engineering at <b>Faculty of Science and Technology, Tangier</b>
2020-2023	University Degree in Science and Technology – Mathematics, Physics, Chemistry, and Computer Science at <b>Faculty of Science and Technology, Tangier</b>

SKILLS

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Programming Languages:	PHP, Java, C++, Python, JavaScript, R
Operating Systems:	Linux, Windows Server
Databases:	MySQL, SQL Server, T-SQL, SQLite
Project Management:	Agile, Scrum
Libraries & Frameworks:	scikit-learn, Pandas, NumPy, Matplotlib, Seaborn
Development & Analysis Tools:	Jupyter Notebook, Talend
Big Data & Distributed Systems:	Apache Spark, Apache Kafka, Hadoop, Cloudera
IoT & AIoT:	MQTT, Node-RED, ThingsBoard, Adafruit IO, IoT communication protocols, real-time AI model integration

LANGUAGES

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Arabic:	Native
French:	Intermediate
English:	Intermediate