

Professional Summary

Machine Learning engineer with recognized expertise in deep learning and predictive modeling. Experienced in deploying scalable ML solutions with Docker and Kubernetes. Passionate about solving real-world problems using artificial intelligence.

Education

- In Progress **MicroMasters in Statistics and Data Science**, MITx, Online
- 2021 – 2024 **National Engineering Diploma in Computer Engineering**, *Ecole Centrale Polytechnique Privée de Tunis*, Tunis, Tunisia
- 2019 – 2021 **Preparatory Class (MPSI)**, *Ecole Centrale Polytechnique Privée de Tunis*, Tunis, Tunisia
- 2019 **Scientific Baccalaureate, Series D**, *Lycée Ibnou-cina*, Ndjamen, Chad
Grade: Fairly Good

Professional Experience

- Feb 2024 – **Data Scientist Intern**, *STB Bank*, Tunis, Tunisia
- Jun 2024 ○ **Credit Card Fraud Detection System Development:**
- **Data Collection & Preparation:** Cleaned transaction data, managed missing values, balanced classes using SMOTE.
 - **Machine Learning:** Developed models (Logistic Regression, Random Forests, Neural Networks) achieving 94.4% accuracy.
 - **Optimization:** Feature selection and hyperparameter tuning.
 - **API & Web Application:** Created a REST API (Flask) and an interactive dashboard (Streamlit) for fraud detection.
 - **Deployment:** Containerized ML models with Docker and deployed using TensorFlow Serving.
- Aug 2024 – **Data Scientist Intern**, *CodeAlpha*, Online
- Oct 2024 ○ **Machine Learning Projects:**
- **Titanic Classification:** Developed a predictive model using scikit-learn.
 - **Stock Price Prediction:** Built an LSTM model for time-series forecasting.
 - **Predictive Modeling:** Applied Linear Regression on real-world datasets.
- Nov 2022 – **Software Engineer Intern**, *The National Land Property Office*, Tunis, Tunisia
- Jan 2023 Designed a robust web application to manage registration files and documents.
- Feb 2022 – **Network Engineer Intern**, *Tunisie Telecom*, Tunis, Tunisia
- Mar 2022 Analyzed the hierarchical structure of a subscriber line network and implemented the MSAN solution.

Academic Projects

Conversational Design and development of a conversational chatbot.

- Chatbot (NLP)** ○ Neural network-based modeling using TensorFlow and Keras.
○ Training on dialogue datasets and implementation of an interactive interface.
○ Model optimization to improve response relevance and fluidity.

Movie Development of a personalized recommendation system using PySpark and Spark MLlib.

- Recommendation System** ○ Application of collaborative filtering and machine learning techniques to tailor suggestions based on user preferences.
○ Processing of large data volumes using Spark APIs to implement recommendation models.
○ Evaluation of recommendations using metrics such as precision and coverage.

Technical Skills

Programming & ML	Python, C++, Java, SQL; TensorFlow, Keras, Scikit-learn, PyTorch
Big Data & Cloud	Hadoop, Spark, Airflow, AWS, GCP
Databases	PostgreSQL, MySQL, MongoDB
DevOps	Docker, Kubernetes, FastAPI, Flask, Streamlit

Certifications

Feb 2025	Deep Learning Specialization (DeepLearning.AI) — Neural Networks, CNN, NLP, etc.
Oct 2024	Machine Learning Specialization (DeepLearning.AI & Stanford) — Supervised, Unsupervised Learning, & Deep Learning.
Feb 2024	IBM Big Data Engineer Certificate — Expertise in Hadoop, Spark, and ML tools.
May 2024	Honoris 21st Century Skills Certificate — Critical Thinking, Data Analysis, Communication.

Languages

French	Bilingual
English	Professional working proficiency (B1, improving towards B2)
Arabic	Bilingual

Interests

Reading	AI research papers, business & productivity books
Volunteering	Tech community engagement, open-source contributions
Sports	Football, running