**SENHADJI NIHAD**

[**nihadsenhadji18@gmail.com**](mailto:nihadsenhadji18@gmail.com)**, +213778055480,**

**Available for relocation to Europe|** [**https://www.linkedin.com/in/nihad-senhadji-7bbb68234/**](https://www.linkedin.com/in/nihad-senhadji-7bbb68234/)

Accomplished AI Engineer and Data Scientist with 3+ years of experience developing production-ready AI solutions that deliver measurable business impact. Expertise in Generative AI, NLP, and MLOps with a proven track record of automating complex processes and uncovering insights from large datasets. Selected for exclusive BNP Paribas AI Workshop in Paris (July 2025) focusing on AI Agent strategy and enterprise applications.

***EDUCATION***

**MASTER Of Applied Statistics and Probability June 2022**

University of Science and Technology Houari Boumediene.

# Bachelor Of Probability and Statistics June 2020

University of Science and Technology Houari Boumediene.

***PROFESSIONAL EXPERIENCE***

**DATA ANALYST, DATA OFFICE, BNP PARIBAS EL DJAZAÏR Dec 2023 – Present**

**AI Strategy & Leadership:**

* Selected for BNP Paribas AI Workshop in Paris (July 2025), One of few professionals chosen globally to participate in AI

Agent strategy and use cases.

* Coached Data Cup competition teams sponsored by BNP Paribas, mentoring participants in solving real-world business

challenges using advanced AI techniques

* Supervised a master’s thesis (co-authored by two students) on the development of an AI agent powered by Retrieval-

Augmented Generation for BNP Paribas, resulting in a fully functional chatbot that delivers accurate, real-time responses by retrieving relevant internal documentation and regulations.

**Production AI Solutions:**

* Built automated Arabic-to-French name translation system using GPT4-Turbo (LLM) and Flask API to automate

the translation of Arabic written names into French, then determine their existence within our client data base, the framework of a regulatory activity related to garnishment and judicial prohibition. The process, previously handled manually by 4 staff to manage over 300 names per day, was optimized to 3 minutes.

* Developed and deployed a write bot using Azure Open AI to automate bank procedure updates during core banking

system transitions, generating accurate and up-to-date procedures without human intervention. reducing the team size from five to one and significantly improving efficiency.

* Implemented RAG-powered knowledge chatbot using ChatGPT models to assist employees in querying

internal procedures and accessing the bank’s documentation. The chatbot enabled precise, real-time responses by retrieving

relevant content from procedural documents, significantly improving support during the bank's core system transformation. It also facilitated access to information about the bank’s database structure and IT architecture, reducing manual search time by 50% and enhancing overall operational efficiency.

* Designed and implemented a regulatory NLP-based system to identify similar names between the client database and the

unstructured "List of individuals barred from issuing cheques" provided by the Bank of Algeria, reducing manual processing time from one week to 15 minutes and improving operational efficiency

**Data Engineering & Quality:**

* Led data quality assessments by executing data extraction, cleansing processes, and establishing data control workflows to

uphold data integrity.

* Implemented Key Performance Indicators (KPIs) to evaluate and enhance data quality, delivering monthly detailed files

containing all data anomalies to each department to facilitate their data remediation programs, ensuring that all bank data is reliable and accurate.

**ENTITY ADMINISTRATIVE FUNCTIONS MANAGER, BNP PARIBAS EL DJAZAÏR Dec 2022 - Dec 2023**

* Built graph-based fraud detection system using Louvain algorithm and network analysis, uncovering €24 million in illicit

capital movements with quarterly reporting to compliance teams.

* Developed a Customer Churn Prediction system that empowered bank agencies to proactively engage clients with high

churn rate. Leveraged supervised machine learning models such as Random Forest and SVM, achieving a predictive accuracy improvement from 65% to 85%. Enhanced client retention strategies by recommending tailored products and feedback.

* Implemented semantic similarity clustering system using BERT embeddings to categorize client activities by risk

sensitivity levels, enhancing decision-making and risk assessment capabilities.

# DATA SCIENTIST INTERN, YASSIR EXPRESS November 2021 - July 2022

Created Restaurant Recommendation Systems with Python for **YASSIR EXPRESS*.***

# Architected multi-modal recommendation engine combining KNN-based collaborative filtering, popularity-based systems,

# and location-aware clustering using K-means and Haversine distance algorithms

# DATA SCIENTIST INTERN, AYRADE COMPUTER SERVICES COMPANY July 2021 – February 2022

* Developed an Annual Dashboard and Reports using Power BI.
* Constructed a Regression Model for Predicting Annual Sales Revenue.
* Established a Non-relational Database using MongoDB.

**DATA SCIENTIST INTERN***,* **SIRIUS NET SOFTWARE DEVELOPMENT COMPANY June 2021 - February 2022**

* Designed and implemented a responsive website utilizing Bootstrap, HTML, and CSS.
* Database management tasks using PhpMyAdmin

**DATA ANALYST INTERN, ELIT EL DJAZAÏR INFORMATIONS GROUPE SONALGAZ April 2019 - October 2019**

* Established databases and conducted data interpretation to drive meaningful insights using SQL

***TECHNICAL SKILLS***

**AI/ML Technologies:**

Generative AI: GPT-4, Azure OpenAI, RAG systems, LLM fine-tuning

Machine Learning: Scikit-learn, TensorFlow, PyTorch, XGBoost, Random Forest, SVM

NLP: BERT, Transformers, Spacy, NLTK, Semantic Similarity, Text Classification

Deep Learning: Neural Networks, CNN, RNN, LSTM, Attention Mechanisms

**Programming & Frameworks:**

Languages: Python, SQL, R, Java, JavaScript, MATLAB

Frameworks: Flask, Django, Streamlit, Node.js, Bootstrap

Cloud Platforms: Microsoft Azure, Azure OpenAI Service

MLOps: Docker, Git, Jenkins, CI/CD pipelines

**Data & Visualization:**

Databases: MongoDB, MySQL, PostgreSQL, SQL Server

Analytics: Pandas, NumPy, Matplotlib, Seaborn, Plotly

BI Tools: Power BI, Tableau, Altyrex

**Business Impact:** Fraud Detection, Process Automation, Customer Analytics, Regulatory Compliance

***ACADEMIC PROJECTS***

* Heart Failure Disease Prediction Project using unsupervised Machine learning technique Kmeans

Clustering.

* House price prediction Project using unsupervised Machine learning technique Linear Regression.

# CERTIFICATIONS

# IBM Machine Learning Professional Certificate.

# DeepLearning.AI Neural Networks and Deep Learning.

# DeepLearning.AI Natural Language Processing Specialization.

* Coursera Generative AI with Large Language Models.
* Stanford Machine Learning Course (Coursera).

# Microsoft Azure Develop Generative AI solutions with Azure OpenAI Service.

# Microsoft Azure Build a question-answering solution.

# Microsoft Azure Prepare for AI engineering.

# Google Fundamentals of Digital Marketing Google

# MongoDB Certified Developer

# Certified Administrator Domino Data Lab.

# Certified Data Science Practitioner Domino Data Lab

# CORE STRENGTH

* **AI Strategy Development** - Proven ability to design and implement enterprise-scale AI solutions
* **Cross-functional Leadership** - Successfully coached teams and managed complex, multi-stakeholder projects
* **International Collaboration** - Selected for global AI workshop, demonstrating strong international potential
* **Business Impact Focus** - Consistent track record of delivering measurable ROI through AI implementations.
* **Rapid Adaptation** - Expertise in emerging technologies with ability to quickly implement cutting-edge solutions

***LANGUES***

Arabic (Native) | French (Fluent) | English (Fluent) | Turkish (Professional)

**AVAILABILITY**

**Immediate availability for opportunities in Europe**

Currently in Paris for BNP Paribas AI Workshop (July 2025)

Schengen visa valid for 30 days - ready for interviews and onboarding