

ZAINEB DARCHEM

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[LinkedIn](#) | [GitHub](#) | [Codeforces](#)

OBJECTIVE

Aspiring Machine Learning Engineer with a solid foundation in applied mathematics, statistics, and AI, eager to apply advanced ML techniques to solve business challenges. Skilled in Python programming, model development, and deployment, with hands-on project experience in predictive modeling and recommender systems.

EXPERIENCE

Banque Nationale Agricole (BNA) : Accounting Reporting Division Intern August 2025

- Automated Excel-based accounting workflows using Python, VBA, and Power BI (M language).
- Built scripts to combine, clean, and transform financial datasets, reducing processing time from minutes to seconds.
- Deployed a cloud-based solution via Google Colab to comply with internal IT restrictions.
- Integrated automated data preparation directly into Power BI for seamless dashboard refreshes.

EDUCATION

Applied Mathematics and Modeling Engineering 2024 - 2027
Higher National School of Engineering in Tunis (ENSIT)

Maths & Physics Preparatory degree : 2022 - 2024
Preparatory Institute for Engineering Studies of Tunis (IPEIT)

SKILLS

- **Programming:** Python, java, C, C++, MATLAB, HTML/CSS, Javascript
- **ML & AI:** Scikit-Learn, Pandas, TensorFlow, NumPy, Matplotlib, Seaborn PyTorch
- **Mathematics:** Linear algebra, probability distributions, statistical inference, optimization
- **Tools/Environments:** Git/GitHub, VSCode, jupyter, google colab

PROJECTS

University Management Desktop App using WinDev (First year final projet) ([Try it here](#))

- Collaborated within a four-person team to build a full-featured desktop application for managing students and teachers.
- Implemented a role-based access control system and an automated grade-calculation module.
- Designed the database structure, developed a secure authentication workflow and integrated analytical statistics dashboards to visualize data to the administrator.

Healthcast : AI-driven Fitness & Nutrition App ([Try it here](#))

- Built an app that converts natural-language health and lifestyle prompts into personalized workout and meal plans.
- Collaborated in a four-member team, sharing roles across NLP extraction, ML models development and generative AI integration.
- Implemented Random Forest and XGBoost models for workout and nutrition predictions using custom datasets.
- Integrated LLMs (Gemini, Murf) to produce motivational podcast-style audio and concise Markdown summaries for users.
- Developed a Streamlit web interface for intuitive user input and output interaction.

COMMUNITY INVOLVEMENTS

- **8th Global Competition on Design for Future Education (GCD4FE)**
- **Seneca Hacks :** 48h NLP hackathon
- **NerData ENSIT Club :** Project manager conducting various ML workshops
- **Geeks ENSIT Club :** Active Member

ADDITIONAL QUALIFICATIONS

Languages : english (advanced), french (fluent), arabic (native)

Certificates :

- Introduction to Jupyter - 365 DataScience
- Introduction to TensorFlow - Pistacia
- AI Fundamentals - datacamp