CHAYMAE DAHHASSI

Generalist engineering student looking for a 6-month gap year internship starting from March

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EXPERIENCE

Data & Process Analyst | GIE AXA (AXA Group Headquarters) | Sep 2024 - Feb 2025

- Develop a business-strategic approach to retail underwriting.
- Contribute to the evaluation and implementation of inclusive insurance practices and policies, ensuring accessibility and equity in insurance offerings.
- Assist the team in analyzing the application of medical data to assess risk and determine appropriate coverage for policyholders.
- Collaborate with the team on a POC to explore the potential of Generative AI and LLMs in enhancing underwriting workflows, improving pricing accuracy, and accelerating processes, while developing and maintaining data monitoring tools and dashboards, using PowerBI, to support statistical analysis for AXA entities.
- Support the team in researching and analyzing industry trends, regulatory changes, and best practices related to medical underwriting and inclusive insurance.

Data scientist | Office Chérifien des Phosphates (OCP) | July 2023 - Aug 2023

- Develop an LSTM-based model to forecast the production output of two phosphate mining stations, using the CRISP-DM framework.
- **Technical skills:** Python, Numpy, Matplotlib, Pandas, Scikit-learn, Flask, HTML, CSS, JS, BOOTSTRAP, RNN, LSTM, time series.
- **Soft skills:** : Time management, communication, Agile, Problem solving.

EDUCATION

Generalist Engineering | Ecole Centrale Casablanca (ECC) | 2022 - 2026

Major in "Modeling & Decision Support"
Main courses: Probabilities, Statistics, Stochastic optimization, MLOps, Machine Learning, Graph theory, Quality & reliability engineering.

Exchange Semester | Ecole Centrale de Lyon (ECL) | Feb 2024 - July 2024

Main courses: Algorithmes & Reasoning, Prolog Language, Image Processing, Adaptive filtering, Geographical Information System (QGIS).

Preparatory Classes | CPGE Omar Ibn Lkhattab - Morocco | 2020-2022

Two-year undergraduate intensive course in Mathematics and Physics to prepare for nationwide competitive examination.

ACADEMIC & PERSONAL PROJECTS

Image processing & Computer Vision | Laboratory of Computer Science, Image, and Information Systems (LIRIS) | ECL | Feb 2024 - June 2024

Development of a hydrophilic surface that preserves the shape of water droplets:
- Implementation of an object detection algorithm using OpenCV to identify water droplets and the surface on which they are deposited.
- Automatic calculation of contact angle between the surface and the droplet's tangent.
- Use of YOLO-V8 for image segmentation.
- Development of an easy user interface to present these features.

PwC Switzerland Power BI Job Simulation | Forage | July 2024

- Developed comprehensive dashboards of key performance indicators (KPIs) for a Call Center to help them learn more about their clients satisfaction & behavior, and for a Telecom Company to help them mitigate potential customer churn risks and diversity & inclusivity problems.

Innovation & Intrapreneurship Project | ECC | Sept 2023 - Jan 2024

- **Transferring a technology from one domain to another:** from processing medical records to treating Moroccan jurisprudence documents
- **Key deliverables:**
  - MVP of an asynchronous architecture for medical documents processing and extraction of metadata using OCR
  - Business Plan
  - R&D Review drafting.

Scientific Research Project | ECC | Sept 2023 - Jan 2024

Study of the impacts of climate risks in Morocco
- Currently in the process of publishing a research paper.

Learning By Doing Project | ECC | Sept 2022 - July 2023

We developed an **adaptive traffic light system** that dynamically adjusts the timing of traffic light based on real-time traffic conditions. It **reduces waiting times by optimizing the duration of green lights according to the volume of vehicles** at each junction.
- We used YOLO V5 model for car detection, and trained it on our own dataset.

Health & Prevention Project | CPGE | May 2021 - July 2022

- Developed a Convolutional Neural Network (CNN) model that accurately classifies breast cancer tumors into malignant and benign.
- Achieved an accuracy of $\sim 98\%$.

TECHNICAL SKILLS

- **Coding languages:** Python (Pandas, Matplotlib, Seaborn, Numpy), R, Java
- **Web Development:** HTML, CSS, Bootstrap, Flask
- **Databases:** SQL, NoSQL
- **Machine Learning/Deep Learning:** TensorFlow, PyTorch, scikit-learn, OpenCV
- **Data analysis:** Power BI, DAX, Dash, VBA Excel
- **Development environments:** Colab, Jupyter, VS Code, Git
- **Other tools:** Microsoft Office Suite, MATLAB, Git, Gitlab, Trello, UML, SysML, Catia, QGIS, Prolog, Flexsim

SOFT SKILLS

- Teamwork/autonomy
- Leadership
- Analytical & Pragmatic Thinking
- Communication
- Curiosity
- Proactivity

CERTIFICATIONS

- IBM Data Analyst Professional Certificate (ongoing)
- Deep Learning Specialization
- Google Project Management (Professional Certificate)
- Scrum Master Certification
- Client Needs and Software Requirements
- Requirements Engineering, Secure Software Specifications
- Documentary Research (Certificate authorized by École Polytechnique)

LANGUAGES

- Arabic: Native
- English: TOEFL IBT (2021), TOEIC (2023) | Score: 930/990
- French: DELF B2 (2017), DALF C1 (ongoing)