MECHACHE ELHADJEAHMED

Artificial Intelligence and Big Data Engineer

Contact Information

Website:	mechcahe.github.io/website
Location:	Khemis Miliana, Algeria
Email:	elhadjemechache@gmail.com
Phone:	+213770211603
LinkedIn:	linkedin.com/in/ai-engineer-elhadjeahmed
GitHub:	github.com/ElhadjeAhmed

Summary

Artificial Intelligence and Big Data Engineer with expertise in machine learning, natural language processing, and computer vision. Skilled in data analysis, feature engineering, and visualization, with experience building AI systems and interactive dashboards to support data-driven decision-making.

Education

- **Master's in Artificial Intelligence and Big Data** (Graduated 2025)
  Djilali Bounaama University
  Focus:machine learning, deep learning, natural language processing, and computer vision. We also covered big data analytics, data mining, data warehousing, NoSQL databases, and distributed systems such as Hadoop and Spark, in addition to cloud and high-performance computing. The program included mathematics and statistics for AI, programming with Python, MATLAB, data visualization (Tableau, Power BI), as well as research methodology, project management, case studies, and a master thesis.
  Thesis/Project: Arabic Readability Assessment (NLP system using Deep Learning and BERT-based models)

- **Bachelor's in Computer Science** (Graduated 2023)
  Saad Dahleb University and Djilali Bounaama University
  Focus:Algorithms and Data Structures,Computer Architecture,Operating Systems,Programming Fundamentals (C/C++, Java, Python),Object-Oriented Programming,Theory of Computation,Discrete Mathematics,Linear Algebra for Computing.
  Project: Transportly Logistics Platform (Award-winning project optimizing transport logistics in Algeria)

Experience & Projects

- **Arabic Readability Assessment (NLP)**
  Multi-model system to assess Arabic text readability using Deep Learning, statistical frequency models, and BERT-based analysis.
  Links: GitHub, YouTube

- **RetinaGuard – Diabetic Retinopathy Detection**
  AI system to detect and grade diabetic retinopathy severity from fundus images, integrating Grad-CAM for model explainability.
  Links: GitHub, YouTube

- **Sales & Profitability Analysis Dashboard (Power BI)** – Interactive dashboard for retail/e-commerce business, providing KPIs, sales trends, and profitability insights to support data-driven decision-making.
  Link: GitHub

- **Data Analysis & Feature Selection – Used Car Dataset** – Performed EDA, data cleaning, and feature engineering (car age, categorical encoding, scaling). Applied feature selection to identify key predictors for price estimation using Python, pandas, and matplotlib.
  Link: [GitHub](#)
- **Transportly Logistics Platform**
  Android app to optimize logistics in Algeria by connecting clients with transporters utilizing empty truck returns, significantly reducing costs.
  Links: [GitHub](#), [YouTube](#)

Technical Skills

- **AI Skills :** Machine Learning, Deep Learning,Natural Language Processing (NLP), Computer Vision, Explainable AI (Grad-CAM, model interpretability), Feature Engineering & Feature Selection, Data Mining & Big Data Analytics, Distributed Systems (Hadoop, Spark), Cloud & High-Performance Computing.
- **Programming & Tools :** Python (pandas, matplotlib, etc.), C / C++, Java, MATLAB, Tableau, Power BI.
- **Data & Analytics :** Data Analysis & Visualization, Exploratory Data Analysis (EDA), Statistical Frequency Models, Dashboard Design.
- **Other Skills :** Research Methodology & Project Management, Case Studies & Problem Solving, Mobile App Development (Android apps).

Certifications

- Startup Certificate – Patent   Djilali Bounaama University, Khemis Miliana – 2023
  View Certificate
- Participation Certificate – National IA Environmental Projects   CRE, Annaba – 2025
  View Certificate

Achievements

- Winner, Innovative Project in Logistics – Transportly (2023)
- Semi-Finalist, IA Olympiad in Algiers (2025)
- Participant, IA Quest, Algiers (2024)
- Participant, National IA Environmental Projects Annaba (2025)

Languages

- Arabic: Native
- English: Very Good (EVASCHOL Certificate, 2015)
- French: Good