MEHDI ALIZADEH

Data & AI Engineer

U.S. citizen — no sponsorship required
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Data & AI engineer with 4 years of professional experience through a work-study apprenticeship program at Société Générale, including two years in data engineering. Experience in Spark, Databricks, data quality, and LLM integration in a development environment.

EXPERIENCE

Société Générale — Investment and Retail Banking (7th-largest European bank by assets) Sep 2022 – Aug 2026
Work-study apprenticeship | France

Big Data Engineer Sep 2024 – Aug 2026
Data Quality & AI

- Reconstructed and migrated a regulatory risk data pipeline on Databricks/AWS using PySpark, Delta Lake, Lakeflow, and Medallion architecture in a development environment.
- Built a data-quality prototype with 23 pipeline checks; ran 605 checks across five synthetic test scenarios.
- Classified 142 anomalies in a test run using rules and a business dictionary; integrated Llama 3.3 and Genie Space in a development environment.

Data Lineage & Big Data

- Developed transformations with Scala and Spark in the Hadoop ecosystem (Hive, HDFS, YARN), and REST APIs with Play Framework.
- Evaluated Apache Atlas, DataHub, and OpenLineage for data lineage; wrote and improved unit tests using Git and Maven in an Agile SAFe team.

Data Analyst HR Sep 2023 – Aug 2024
HR Reporting & Analytics

- Automated reporting with VBA and Excel, including dashboards covering employee arrivals and departures.
- Used Tableau and Jupyter Notebook to analyze and present employee data.

Data Quality / KYC Corporate and Investment Banking (SGCIB) Sep 2022 – Aug 2023
KYC Data Quality & Mapping

- Developed an accepted KYC proof of concept; investigated data quality anomalies using VBA and Power BI.
- Mapped external partner data and supported regulatory data-quality requirements for key account parties, coordinating with affected teams.

Netblue Creation — Co-founder & President | France Aug 2025 – Oct 2025

- French agency established to develop websites and applications.

PROJECTS

Personal Projects:

- **RoverWatch & Rover Lab** — NASA REMS data analysis and exploratory rover simulation (MuJoCo, PPO). 2026
- **NOVA** — Personal web and iOS app for routines, fitness and progress, with an AI assistant. 2026

Academic Projects:

- **Movie Poster Classification** — Team project: PyTorch, CNN and DenseNet201. 2025
- **Movie Recommendation System** — Team project using collaborative filtering and k-NN. 2025
- **BlogNet** — Web development capstone using React, Node.js and MongoDB. 2023
- **Decision Tree** — Study of decision tree models. 2023

EDUCATION

ESIEA (Ivry-sur-Seine, France) — **Master's-level Engineering Degree, AI & Data Science** Ranked #5 in France 2023 – 2026
Finance minor. AI exchange: **KMUTT**, Thailand (2024) Ranked #3 in Thailand
42 Paris (Paris, France) — **Accepted after the Piscine** [Acceptance] Ranked #4 in France 2023
EFREI (Villejuif, France) — **Bachelor, Software Development & Data** [Diploma] Ranked #6 in France 2022 – 2023
Part of **Paris-Panthéon-Assas University** Ranked #2 in France
San Jacinto College (Houston, TX) — **Associate of Science, Engineering** [Diploma] Ranked #6 in Texas 2019 – 2022

ADDITIONAL TRAINING

Python for Machine Learning & Data Science Masterclass — Udemy [Certificate of completion] 2026
Complete Python Bootcamp — Udemy [Certificate of completion] 2022
Databricks Certified Data Engineer Associate - Preparation — Udemy [Certificate of completion] 2026

TECHNICAL SKILLS

Languages: Python, SQL, Scala, VBA.
Data: Spark, PySpark, Databricks, Delta Lake, Hive, HDFS, YARN, Unity Catalog, Lakeflow, ETL/ELT, dbt, Airflow, Snowflake.
Development: Git, Maven, REST APIs, Play Framework, JavaScript, React, Node.js, MongoDB, Firebase, Docker.
Engineering practices: CI/CD, deployment, production monitoring, unit testing.
Analytics: Power BI, Tableau, Excel, Jupyter Notebook.
Applied AI: Llama 3.3 and Genie Space (development environment); LLM agents, tool calling, AI evaluation (other application).

LANGUAGES

French: Native | English: Fluent
Spanish: Intermediate (reading and listening) | Japanese: Elementary (JLPT N5, self-assessed)