###CHUNK###

My name is Amine Benkirane, I am 28 years old.

I am Moroccan by origin. I currently reside in Casablanca and Toulouse, France.

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Languages

- Arabic: Native speaker.
- French: Bilingual.
- English: Expert (C1, TOEIC 950).
- Spanish: Fluent (B2 level).

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I am a Machine Learning Engineer specializing in AI and data science, with a focus on predictive modeling, automation, and advanced neural network architectures. I am currently freelancing to build independent projects.

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Education

- **Diplôme d'Ingénieur & Advanced Master's (Bac+6)**: INSA de Toulouse & ISAE-SUPAERO (2014–2019).
  - Mechanical Engineering with specialization in numerical simulation and fluid dynamics modeling using machine learning.
  - Drone architecture with integration of computer vision and deep learning for system optimization and object recognition.
- **Certifications**:
  - IBM Supervised Machine Learning Certificate.
  - Andrew Ng's Deep Learning Specialization (Stanford).
  - Stanford's Machine Learning Specialization.
  - Harvard's Professional Python, SQL, and Data Science Certificates.

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Work Experience

1. **Data Science & Automation Engineer – Airbus, Toulouse** (April 2020 – October 2020):
   - Analyzed test logs for anomaly detection to optimize automated test procedures.
   - Developed pre-flight simulations for thermodynamic performance predictions.

2. **Simulation and Data Analysis Engineer – Accenture & Airbus** (May 2022 – June 2023):
   - Automated CAD workflows, reducing repetitive tasks by 50%.
   - Developed systems for condensation trail monitoring and performance control using in-flight sensor data.

3. **CAD Workflow Automation Developer – Accenture & Airbus** (June 2023 – Present):
   - Automated form filling for documentation, improving accuracy and efficiency.

4. **Freelance Machine Learning Developer** (June 2024 – Present):
   - Built sentiment analysis platforms using RNNs for precise customer feedback management.
   - Designed prediction models for tennis match outcomes based on historical performance.
   - Created RAG chatbots for customer service, integrated into existing systems to streamline operations.

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Technical Skills

- **Programming**: Python, R, SQL.
- **Machine Learning**: Regression, classification, and neural network architectures (Feedforward NNs, CNNs, RNNs).
- **Deep Learning Frameworks**: Scikit-learn, TensorFlow, PyTorch.
- **Data Science**: Data cleaning, preprocessing, and visualization with Numpy, Pandas, and Matplotlib.
- **Specialized Knowledge**: Computer vision, NLP, predictive modeling, and chatbots.

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Hobbies and Interests

- DIY projects: I've built a laser CNC machine for engraving and enjoy experimenting with automation tools.
- Traveling: I enjoy traveling to Asia and Latin America.
- Health and cooking: I explore international cuisines and create Instagram content on health and nutrition.

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Contact Information

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- Phone: +33 7 82 18 62 26
- Portfolio: aminebenkirane.dev
- LinkedIn: linkedin.com/in/amine-benkirane-ml
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Portfolio or CV
Yes, I have a portfolio available at aminebenkirane.dev, where I showcase my work, including projects and certifications.

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GitHub or LinkedIn

- GitHub: I currently focus more on hosting projects locally or for clients, but I can share code samples on request.
- LinkedIn: My LinkedIn profile is linkedin.com/in/amine-benkirane-ml.

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Research Papers
I have not published formal research papers yet but have developed advanced projects in predictive modeling, sentiment analysis, and automation that reflect research-like depth.

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AI Tools or Models Developed

- Built an RNN for sentiment analysis on user reviews.
- Created a tennis match prediction model using historical data.
- Developed a RAG chatbot for customer service.
- Worked on a computer vision system to detect manufacturing defects in needles.

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Datasets Used

- Movie reviews dataset for sentiment analysis.
- Historical tennis match data for prediction models.
- Custom datasets for laser engraving designs.

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Quirky Habits or Routines
I am meticulous about structuring my work and learning step-by-step. I also enjoy experimenting with DIY projects in my free time.

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Motivation
I am motivated by the desire for independence, creativity, and the challenge of solving complex problems with technology.

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Value in Life
I value self-improvement, knowledge, and building meaningful connections.

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Dream for the Future
My dream is to achieve financial independence through freelancing and innovative AI solutions, while having the freedom to travel and work on passion projects.

###CHUNK###

Perfectionism
I strive for high-quality work and enjoy refining projects until they meet my standards, but I balance this with pragmatism to avoid unnecessary delays.

###CHUNK###

Work Preference
I prefer working independently to focus on my own goals but collaborate well in teams when needed for larger projects or diverse ideas.

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Data Pipelines
I typically use **Apache Airflow** for orchestrating workflows, ensuring tasks run in the correct order with proper monitoring. For ETL processes, I rely on **dbt (Data Build Tool)** to transform data within a modern data stack, often integrated with **Snowflake** as the data warehouse.

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Database Systems
I work extensively with **PostgreSQL** for relational data and **MongoDB** for NoSQL requirements. For high-performance analytics, I use **Snowflake** due to its scalability and **Amazon Redshift** for large-scale queries. For vector databases in machine learning projects, I have experience with **Pinecone**.

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Real-Time Data Processing
For real-time data streaming, I use **Apache Kafka** to ingest and process events in near real-time. On the processing side, I leverage **Flink** or **Spark Streaming** depending on the latency requirements of the application.

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Data Visualization
For dashboards and reporting, I prefer **Tableau** for its user-friendly interface and **Power BI** for enterprise-level integrations. For custom visualizations, I use **Plotly Dash** or **Seaborn/Matplotlib** in Python.

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Cloud Platforms
I work mainly with **AWS** services, including **S3** for storage, **Glue** for ETL tasks, and **Athena** for

querying structured data. I also have experience with **Google BigQuery** for large-scale analytics and **Azure Data Factory** for pipeline orchestration.