MALEK BEN YOUSSEF

Data Science Junior

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PROFESSIONAL EXPERIENCE

Data Engineer Intern — Feb 2025 – Present
Crewmeister — *Munich, Germany*

- Built automated ETL pipelines to ingest and process data from multiple SaaS APIs into BigQuery
- Created user behavior analytics dashboards to track inactivity patterns across Crewmeister application
- Built a Google Apps Script tool to inventory Looker Studio assets and automate permission management.
- Optimized SQL queries, cutting query size and reducing BigQuery costs by 40%.
- **Skills**: GCP, BigQuery, SQL, Apache Airflow, Looker Studio

Machine Learning Intern — Jul. 2024 – Sep. 2024
Premier Cloud — *Victoria, British Columbia, Canada · Remote*

- Built an NL2SQL chatbot converting user prompts into SQL queries with natural language responses
- Helped the company's sales managers to quickly retrieve customer billing information
- Worked with Gemini LLM and achieved approximately 95% output accuracy.
- Optimized SQL queries, reducing query size and achieving a 30% reduction in BigQuery billing.
- Deployed the application using Google Cloud Run and managed a CI/CD pipeline with Google Cloud Build.
- **Skills**: GCP, BigQuery, SQL, Gemini, Vertex AI, Looker Studio, Prompt Engineering, Generative AI, Git

Machine Learning Engineer (Part-Time) — Nov. 2023 – Jan. 2024
Silver Brain AI AG — *Geneva, Switzerland · Remote*

- Developed a chatbot using Llama 2 LLM (7B parameters) to provide detailed service information to clients.
- Employed RAG techniques to optimize LLM text generation, improving output quality by 30%
- Integrated and deployed the chatbot application in a web app, managing a CI/CD pipeline
- **Skills**: Python, LangChain, LlamaIndex, Prompt Engineering, FastAPI, Git

Full Stack Developer Intern — July. 2023 – Sep. 2023
Safran — *Tunis, Tunisia*

- Created a dashboard for 100+ users, that offers quick access to the company's equipment status.
- Integrated data visualization and real-time updates.
- **Skills**: Angular, Spring Boot, Git, SQL, REST APIs

SKILLS

Programming Languages: Python, SQL, C, C++, Java
Machine Learning & AI Frameworks: TensorFlow, scikit-learn, LangChain, LlamaIndex, SpaCy, NLTK
Cloud & MLOps: Google Cloud Platform, Vertex AI, BigQuery, Apache Airflow, Docker, CI/CD, GitHub Actions, Flask
Languages: English (Fluent), French (Proficient), Spanish (Basic)

PROJECTS

Autonomous Navigation using Deep Reinforcement Learning — May. 2024 – Jul. 2024

- Developed an autonomous robot navigation system using the TD3 algorithm.
- Achieved an 85% improvement in navigation accuracy.
- Implemented deep reinforcement learning for obstacle avoidance, achieving 92% success rate in tests.
- **Skills**: Python, ROS2, Rviz, Gazebo, TensorFlow.

Soccer Chatbot — Dec. 2023 – Jan. 2024

- Built an information retrieval system about soccer based on 1000+ PDF file pages.
- Applied Llama 2 LLM and RAG techniques achieving 95% accuracy in information retrieval.
- **Skills**: Python, LangChain, Chainlit, FAISS, OpenAI Embeddings, Llama2

EDUCATION

National Institute of Applied Sciences and Technology (INSAT) — Tunis, Tunisia
National Engineer's Degree in Computer Science — *Sept. 2020 – Present*
Relevant Courses: Linear Algebra, Database Management, Algorithms and Data Structures, Deep Learning, NLP, Cloud Computing, Big Data, Optimization Methods, Reinforcement Learning

CERTIFICATES

Professional Machine Learning Engineer		Deep Learning Specialization		Scrum Fundamentals	
Google Cloud	*Jul, 2024*	*DeepLearning.AI*	*Feb, 2024*	*SCRUMstudy*	*Feb, 2022*