Haroun Khmiri

Data Scientist & Al Engineer

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Professional Profile

My name is Haroun Khmiri, I am Currently completing my Engineering degree at Ecole Polytechnique de Sousse, I am dedicated to bridging the gap between theoretical AI concepts and real-world solutions. Fueled by an analytical mindset and a background in complex system development, I am looking for a challenging internship or full-time role in Data Science where I can leverage my skills in C++, Python, and Deep Learning to drive innovation.

Professional Experience

Data Scientist Intern, *ARSII* 07/2025 – 09/2025
Sousse, Sahloul

- Generating synthetic data of blood culture signals.
- Preprocessing and feature engineering.
- Designed models that Identify pathogens through blood culture cells and predict their antibiotic resistances
- Scaled, trained and evaluated pathogens detection models.
- Developed interactive interfaces to test medical data.

AR/VR Developer, *Shetech Studio* 10/2023 – 09/2024
sahline, Monastir

- Engineered immersive AR/VR applications: implemented strategic Al behaviors.
- Built a VR system that tracks biometrics and syncing to a real-time analytics dashboard.
- Data Collection of player heart rate through oculus rift.

Gameplay Programmer Intern, *Herodot* 02/2023 – 06/2023
Ariana, Tunis

- Developed core gameplay mechanics and optimized client-server networking with Netcode, enhanced latency and stability for multiplayer prototypes.

Education

Engineering Degree Al & Data Science, *Polytechnique Sousse* 2023 – Present

- Specializing in data engineering, statistical learning, and scalable software architecture.

Bachelor's in Computer Science, *ISIG-K* 2020 – 2023

- Focused on algorithms, software design patterns, and system optimization.

Selected Projects

Academic Project: Financial Report Analysis,
Python, NLP, Spacy, NLTK, Docker, Transformer, Git/GitHub Actions

- build and deployed Analysis natural language processing system designed to automate the extraction, analysis, and insight generation from financial reports. The platform processes PDF documents

Personal Project: C++ ML Framework, *C++, STL, K-Means, K-NN, Neural Networks*

- Authored core ML algorithms from scratch using c++ STL, Implementing model such as K means, decision tree etc...

Personal Project: Stock values Prediction Model, *DI., LTSM, RNN, Python*

- Developed a stock values prediction model utilizing techniques such as LSTM and recurrent neural network in python.

Academic Project: Salary Prediction & Exoplanet Classification,
Python, Scikit-learn, Flask, Streamlit, Docker, Git/GitHub Actions

- Developed salary prediction and exoplanet classification models.

Personal Project: Heap-Optimized Pathfinding, *Unity, Cu, A* Algorithm, Octree Partitioning*

- Engineered high-performance pathfinding for 10K+ nodes using heap sorting and octree spatial partitioning, halving route computation time.

Academic Project: Narrative game with reinforcement learning,
Python, Reinforcement Learning, Unity, Gamification

- I developed a game where Al suspects learn to lie, evade, and deceive while the human player tries to catch them, powered with reinforcement learning and gemini API.

Personal Project: Procedural World Generation, *Unity, C#, Perlin Noise*

- Developed a flexible terrain engine for forests, deserts, and mountains, cutting manual design time by 70% via procedural pipelines.

Personal Project: Custom C++ Game Engine, *C++, OpenGL., Assimp, STB Image*

- Crafted a modular 3D engine with octree collision and batch-rendered lighting.

Academic Project: Library Management System, *C#, .NET. SQLite, LiveCharts*

- Automated library workflows and dashboards, reducing administrative tasks.

Academic Project: Recommendation Engine Backend, *RestAPI, gRPC, GraphQL, Kafka, JWT, Docker*

- Designed microservices for authentication, cataloging, and real-time recommendations.

Personal Project: Turn-Based Tactical Card Game Powered by GOAP Al system,
Unity, Cr, Al Behavior Trees, GOAP

- Designed a tactical card battler with Al-driven opponents and dynamic mechanics.