

NOAN OUEDRAOGO

COMPUTER ENGINEER - DATA/AI SPECIALISATION

Computer engineer specialised in Data Science, 3 years of apprenticeship in a production environment including the design of a multi-site RAG platform. Looking for opportunities in applied AI solution development, from October 2026, to contribute to innovative, ambitious projects.

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 noan-ouedraogo.dev

SKILLS

Programming languages

- Python (AI/ML/Data), SQL
- C, C++, C#, JavaScript

Data Science, ML & Deep Learning

- Feature engineering, calibration, cross-validation, evaluation
- CNNs, autoencoders, LSTMs, attention, transfer learning
- Scikit-Learn, XGBoost, LightGBM, statsmodels, TensorFlow, PyTorch

LLM / RAG

- Embeddings, hybrid retrieval, reranking, LLM-as-judge
- Ollama, Mistral, LangChain, Qdrant

Data Engineering & MLOps

- PostgreSQL, MySQL, Hive/HDFS, ETL, REST APIs, WebSockets
- Docker, Git, asyncio, FastAPI, n8n, Langfuse, Tailscale, Azure DevOps

Data Visualisation

- Power BI, Matplotlib, Seaborn

EDUCATION

MASTER'S LEVEL DEGREE IN COMPUTER ENGINEERING (APPRENTICESHIP)

CESI École d'Ingénieurs, Nanterre
2023 - 2026

INTEGRATED TWO-YEAR PREPARATORY PROGRAMME

CESI École d'Ingénieurs, Nanterre
2021 - 2023

LANGUAGES

- **French:** Native
- **English:** C1 (TOEIC 950)
- **Spanish:** B1

EXPERIENCE

DATA / AI ENGINEER | APPRENTICESHIP - INSEI, Suresnes

April 2023 - September 2026

- **Production RAG / LLM architecture:** document assistant, two sites live, 14 services (Mistral, Ollama)
- **Hybrid retrieval:** BGE-M3 embeddings, Qdrant vector store, BM25, cross-encoder reranking
- **Pipelines & MLOps:** ingestion, chunking, indexing; FastAPI REST API, Docker, production rollout
- **Evaluation & monitoring:** 88 reference questions, LLM-as-judge, Langfuse; routing measured at 96.5%

FULL-STACK DEVELOPER | INTERNSHIP - Ace English Malta, Malta

May - July 2025

- **Management, booking and reporting application:** activities, payments, invoices, classrooms, courses, business dashboards (C# / .NET, Angular)
- **International collaboration:** team planning and tracking (ClickUp), version control (Git); secured REST APIs (SQL Server, Firebase, Azure DevOps)
- **Testing and reliability:** functional testing of the existing application, 20 defects identified and fixed independently, commended by the IT manager

PROJECTS

HYDRE: AUTOMATED ALGORITHMIC TRADING - Personal project

February 2026 - ongoing

- **24/7 self-hosted, event-driven architecture (VPS):** WebSocket, PostgreSQL 16, isolated workers, Docker Compose, Tailscale zero-trust (Python asyncio)
- **Probabilistic calibration:** hierarchical Bayesian, isotonic, conformal prediction; interval output
- **Statistical validation:** gate rejecting any strategy not proven out of sample (PBO via CSCV, deflated Sharpe, Romano-Wolf)
- **Orchestration and monitoring:** n8n + Ollama for auto-optimisation; 12.15M decisions logged, 1,004 tests (Prometheus, Grafana)

AI / DATA PROJECTS - Team Academic Projects | CESI, Nanterre

April 2024 - May 2026

- **Deep Learning • Vision pipeline:** photo/non-photo classification (CNN), denoising (autoencoder), captioning (InceptionV3+LSTM); 5 architectures benchmarked, cost-aware selection (TensorFlow/Keras, transfer learning)
- **Machine Learning • HR attrition:** EDA, feature engineering, rebalancing, 7 models, leak-proof validation (Pandas, Scikit-Learn, XGBoost, LightGBM)
- **Operations Research • Robotic job-shop cell (solo):** scheduling of a machining circuit over randomly generated batches, optimal path given batch and available routes; 5 arms coordinated in real time, machine vision, exact solving and heuristics compared (Python, MQTT, OpenCV)
- **Big Data • Healthcare data warehouse:** star-schema modelling, ETL from open healthcare data and a relational database, partitioning/bucketing for query optimisation (Talend, Hive, HDFS, Cloudera)