Taoufiq OUEDRAOGO

Quantitative Finance and Machine Learning (Internship, CIFRE PhD, Full-Time Roles)

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EXPERIENCE

HSBC Paris, France
AI Engineer Apprentice Sep. 2025 - Current

- Leveraged LLM to assess incident data quality and provide actionable recommendations
- Developed and deployed an NLP tool to identify IT system failures, improving root-cause analysis
- Implemented a scoring model using temporal proximity, TF-IDF, cosine similarity to rank failure causes
- Collaborated with abroad teammates (UK, India, Poland) to integrate AI solutions into existing systems

BNP Paribas Paris, France
Data Scientist & Data Engineer Apprentice Sep. 2023 - Aug. 2025

- Developed a GenAI platform industrializing AI use cases for for BNP Paribas non-EU banks
- Built 4 core GenAI features (Q&A, document comparison, information extraction, summarization)
- Designed Dataiku workflows and Tableau dashboards to monitor ALM operations and trading mandates
- Migrated 20+ Data Pipelines from Alteryx to Dataiku, improving efficiency and maintainability by 50%

Alcatel Submarine Networks (Nokia) Nozay, France
Data Scientist & BI Apprentice Oct. 2022 - Aug. 2023

- Built Tableau Prep pipelines and Tableau dashboards to visualize project interdependencies
- Developed VBA-based simulations for cable manufacturing, reducing planning time by 40%
- Conducted requirements analysis, documentation and team training

Projects / Hackathons

- **Mystery ETF Reconstruction:** ML to infer asset/ETF exposures and allocation from 105 ETFs and 14 asset classes
- **Portfolio Optimization:** Constrained minimization techniques to construct efficient Markowitz frontiers
- **JP Morgan Data Challenge - 2023:** Boosted funding for an association using XGBoost and analytics
- **Rennes Data Challenge - 2023 Finalist:** KMeans clustering to optimize Enedis operational bases and reduce outages

EDUCATION

Pantheon-Sorbonne University - MSc in Financial Mathematics Paris, France , Sept. 2025 - Sept. 2026
WorldQuant University - MSc in Financial Engineering Online , 2024 - 2026
Central School of Electronics - MEng in Big Data & AI Paris, France , 2022 - 2025

SKILLS

Quant Finance: Time Series, Derivative Pricing (Trees, Black-Scholes, Monte Carlo), Stochastic Calculus, Interest Rates Modeling, Portfolio/Risk Management

Machine Learning: Ensembles, Decision Trees, Clustering, Bayesian Stats, Dimension Reduction, Regularization

Deep Learning: Neural Networks, Transformers, NLP, Computer Vision

Data Science & Analytics: Hugging Face, LangChain, Dataiku, Alteryx, Databricks, Tableau, Power BI

Programming: Python, Java, C, C++, R, Docker, DevOps, Databases (SQL, NoSQL, Neo4J)

Languages: French (Native), English (Professional)