Taoufiq OUEDRAOGO

Looking for a 3-year CIFRE PhD in Machine Learning and Quantitative Research

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EXPERIENCE

HSBC - AI Engineer Apprentice
Paris, France, Sep. 2025 - Sep. 2026

- Developed statistical models to analyze operational activities and predict potential IT system failures
- Developed AI-driven automation to generate business charts to make workflows more efficient
- Extended and optimized existing AI solutions leveraging internal operational data from multiple IT tools
- Explored and prototyped innovative AI applications to support emerging business needs
- Ensured integration of AI tools into existing systems and workflows, ensuring compatibility and scalability
- Collaborated closely with business teams to drive user adoption and continuously improve deployed AI tools

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

- Co-developed a GenAI platform leveraging LLMs and RAG to industrialize AI use cases for BNP Paribas non-EU banks
- Co-built 4 core GenAI features (Q&A, document comparison, information extraction, summarization)
- Developed an administrator interface (frontend, backend, database) to manage users and GenAI use cases
- Performed Pytest unit tests on the features developed and contributed to database migration and restructuring
- Designed Dataiku workflows and Tableau dashboards to monitor ALM operations, trader mandates, Sustainable IT
- Migrated about 20 Data Pipelines from Alteryx to Dataiku, improving processing delays and maintainability by 50%
- **Tools:** Python, Domino Datalab, Hugging Face, LangChain, Dataiku, Alteryx, Tableau, SQL Server, GitLab, Jira

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

- Built Tableau Prep pipelines and Tableau dashboards to analyze and visualize project interdependencies
- Developed VBA-based simulations for cable manufacturing, reducing planning time by 40%
- Conducted requirements analysis, documentation, and team training
- **Tools:** Python, SAS, VBA, SQL, Tableau, Tableau Prep, GitHub

Projects / Hackathons

- **AT.x.Lab:** Creating a R&D collective focused on AI and advanced technologies. Innovative problem-solving approaches
- **Portfolio Optimization:** Applied constrained minimization techniques to construct efficient Markowitz frontiers
- **Army Ministry AI Challenge - 2024:** Used ResNet18 vision model, explicability to analyze similar object differences
- **JP Morgan Data Challenge - 2023:** Used XGBoost and analytical methods to boost funding for an association
- **Rennes Data Challenge - 2023 Finalist:** Developed KMeans clustering to optimize Enedis operational bases, minimizing outage response times and improving service efficiency

SKILLS

Quant Finance: Time Series, Derivative Pricing, Stochastic Modeling, Interest Rates Modeling, Portfolio/Risk Management
Deep Learning: Neural Networks, LLMs, Transformers, NLP, Computer Vision
Machine Learning: Ensembles, Decision Trees, Clustering, Bayesian Stats, Dimension Reduction, Regularization
Data Science & Analytics: Hugging Face, LangChain, Dataiku, Alteryx, Databricks, MLFlow, Tableau, Power BI, Graphs
Big Data & Cloud: Microsoft Azure, Azure ML, Apache Hadoop, Spark, Kafka, Hive, Snowflake
Programming: Python, Java, C, C++, R, Docker, DevOps, Databases (SQL, NoSQL, Neo4J, PostgreSQL, MongoDB, UML)

EDUCATION

Pantheon-Sorbonne University, Mathematical Engineering of Finance   *Paris, France, Sep. 2025 - July 2026*
WorldQuant University, MSc in Financial Engineering   *Online, July 2024 - Ongoing*
Central School of Electronics, Big Data & AI Engineering   *Paris, France, Sep. 2022 - July 2025*
Compiègne University of Technology, Computer Science Engineering   *Compiègne, France, 2021 - 2022*
Gustave Eiffel High School, Preparatory Classes   *Dijon, France, 2019 - 2021*
Prytanée Militaire de Kadiogo, Scientific High School Diploma   *Burkina Faso, 2012 - 2019*