



Armand LEOPOLD

CTO as a Service | Data & AI
Expert

CONTACT

✉ armand.leopold@outlook.com

☎ +33 6 40 90 30 46

🌐 linkedin.com/in/armandleopold

🌐 armandleopold.fr

📍 Île-de-France, France

SKILLS

Data Engineering

Python, Scala, Spark, Airflow, Kafka, Hadoop, PostgreSQL, MySQL, Redis, Elasticsearch, Cassandra, Logstash

AI / LLM

Langchain, MLflow, NLP, Scikit-learn, PyTorch, TensorFlow, Federated ML (Substra), Agentic AI, Tool calling, LLM, OCR

DevSecOps / Cloud

Docker, Kubernetes, Helm, Terraform, ArgoCD, GitLab CI/CD, Rancher, Vault, AWS, Azure, GCP, Bash, Linux

Web Full-Stack

React, Next.js, TypeScript, FastAPI, Node.js, Tailwind CSS, PHP, Java

Data Quality

Profiling, quality auditing, governance, OMOP-CDM, CNIL HDW, GDPR, HDW monitoring, pseudonymization

SOFT SKILLS

Leadership & Management

Team management (5 people), entrepreneurship, project portfolio, agile methods, kanban

Data / AI Engineer with 8+ years of experience, founder of QALITA (healthcare Data Quality SaaS), ex-Institut Curie and Thales. Nature Medicine publication. Expertise in data architecture, agentic AI, governance and deployment in secure environments.

Professional Experience

CEO & Founder — QALITA

Apr. 2023 – Apr. 2026

Data Quality SaaS · Healthcare · Python, FastAPI, React, Next.js, PostgreSQL, Kubernetes, Agentic AI

- Built and shipped a SaaS data quality platform targeting hospital health data warehouses (HDW)
- Full-stack MVP deployed on Kubernetes at Institut Curie (UNIBASE project)
- Developed QALITA Studio: conversational AI agent (tool calling, LLM) to diagnose and fix data quality issues
- Listed on UniHA / LogiMed public procurement framework — structured access to French hospital market
- Live deployment at CHU Angers (eHOP HDW) + ongoing POC at CHU Montpellier
- Secured Bpifrance Innovation Loan
- Pitch award “AI, Data & Interoperability” — CHU Connexion Day Bordeaux (Dec. 2025)
- Management of Developer and Marketing Sales teams.

Head of Data Factory — Institut Curie

Oct. 2022 – Apr. 2023

Healthcare / Oncology Research · Team Management, HDW Architecture, CNIL Governance

- Promoted to Head of the Data Factory after 3.5 years ramping up (Data Engineer → DevOps → Head)
- Managed a team of 5 Data Engineers / Data Scientists (agile rituals, GitLab kanban, R&D / Maintenance / Projects prioritization)
- Steered the portfolio of scientific projects and industrial partnerships: AP-HP, Owkin, Arkhn, UNICANCER, Health Data Hub
- Defined the technical scoping of the Curie Health Data Warehouse (HDW), compliant with the French CNIL HDW framework
- Led 3 cross-functional working groups (Security & Infrastructure, Data Governance, Business & Research) — 14 sessions on chapter 10 (security) of the CNIL framework
- Drove data asset valorization (mapping, use cases) and contributed to the Institute's data strategy

DevOps Engineer — Institut Curie

Sep. 2020 – Sep. 2022

Healthcare / Research · GitLab CI/CD, Kubernetes, Nexus, Vault, Kibana

- Defined the target technical architecture of the data division in partnership with hospital IT (DSI)
- Kubernetes namespace urbanization (Draw.io schematics: project isolation, permissions management)
- Full CI/CD strategy on self-hosted GitLab (lint, tests, Docker builds, multi-environment deployments)
- Deployed Sonatype Nexus as internal package registry (Docker images, Helm charts) and managed secrets with HashiCorp Vault
- Observability stack: Kibana (ELK), GitLab Monitor, Statuspage
- DevOps advocacy with scientific staff — delivered public talk “DevOps serving data in Healthcare” (Nov. 16, 2021, 101 attendees)

Communication

Investor pitching, public speaking
EN/FR, negotiation,
institutional relations (hospitals,
Bpifrance)

Methods

Tech watch, scientific publication
(Nature Medicine), technical
architecture, MLOps

LANGUAGES

🚩 French — native

🚩 English — fluent (TOEIC 955)

INDUSTRIES

Healthcare / HealthTech

Defense / Intelligence

Banking / Finance

Industry / R&D

HOBBIES

Music: piano (8 years) & violin

Archery

Tech: Enthusiast & Tinkerer

Geopolitics & international affairs

Science & scientific literature

Sport: running / biking

Travel & cultural exploration

AVAILABILITY

Immediate — Permanent / Freelance

Île-de-France + Remote

Data Engineer — Institut Curie

Apr. 2019 – Aug. 2020

Healthcare / Research · Python, Substra, Federated ML, DICOM, BigTIFF

- HealthChain consortium: built the Curie-side clinical and imaging database for multi-center federated ML (Owkin, AP-HP, Léon Bérard)
- Pathology imaging processing: *whole slide images* in BigTIFF, pseudonymization via DICOM metadata
- Harmonized clinical schemas between Institut Curie and Centre Léon Bérard (variable mapping, nomenclature alignment)
- Deployed and operated the Curie node on the Substra federated infrastructure (Owkin-led open-source federated ML framework)
- Designed and built HDM (Health Data Metrics) — conceptual and technical ancestor of QALITA
- Co-author (2nd) in *Nature Medicine* (Jan. 2023, DOI 10.1038/s41591-022-02155-w) — *federated learning for triple-negative breast cancer*
- Legal / GDPR scoping with the DPO on federated ML model valorization

Data Scientist — Thales

Apr. 2018 – Feb. 2019

Defense / Intelligence · Scala, Spark, Hadoop, NLP, PyTorch

- Social graph analysis from open-source intelligence (OSINT) for government agencies
- NLP, sentiment analysis, AI algorithms on OSINT data
- Contributed to a large-scale data platform project for the French Army

Junior Data Scientist — Thales

Nov. 2017 – Apr. 2018

Aeronautics / Air Traffic · Spark, Kafka, Kibana, ELK

- Flight data analysis for predictive maintenance (A320 fleet, Portuguese airline)
- Kibana dashboards for DSNA DTI (French air traffic management authority)

Junior Data Analyst — Crédit Agricole

Sep. 2016 – Sep. 2017

Banking · Python, R, SAS, SQL, Scikit-learn

- CRM analytical scores and indicators (data mining, machine learning)
- Collaboration at the national DataLab (Montrouge) on consumer panel datasets

Education

Engineering Degree — ESIGELEC

2014 – 2017

Master of Engineering · Big Data & Digital Transformation · Ranked 8th/304

Research Intern — Illinois Institute of Technology

Jun. – Aug. 2016

BigDataX Lab · Big Data Architecture · Chicago

Continuing Education

2018 – 2022

Udacity Cloud DevOps · deeplearning.ai · Capgemini Data Governance · Univ. of Michigan Data Science

Personal Projects

Previly

Nov. 2025 – present

Personal finance SaaS · OCR, bank sync, agentic AI · Next.js, Langchain

Homelab

Jun. 2020 – present

Raspberry Pi 5 cluster (4 nodes, 1TB NVMe) · Rancher, Longhorn, Grafana, Helm