

Cristian Rohr

AI ENGINEER | LLM OPS | DATA SCIENTIST

Rosario, Argentina. Open to Remote (Global)

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AI Engineer & Data Scientist with 10+ years of experience spanning data science, applied AI and bioinformatics. I design, deploy, and scale production-grade AI systems—multi-agent workflows, RAG applications, and LLM Ops platforms—embedded in real healthcare and genomics operations. Skilled in full-stack delivery (FastAPI, AWS, CI/CD, observability), I bridge hands-on engineering with strategic leadership, driving AI adoption and turning prototypes into reliable, high-impact production systems.

WORK EXPERIENCE

Data Science & AI Lead (Full-stack ML/LLM Ops)

Héritas

OCTOBER 2022 → PRESENT

— LLM & Agent Systems —

- Designed and deployed multi-agent systems with LangChain/LangGraph for variant triage and reporting, cutting analyst workload by 50%.
- Built and productionized RAG applications (embeddings, retrievers, vector stores) with observability and tracing for knowledge retrieval.
- Automated NIPT analysis pipeline with agents, YAML configs, and JIRA/LIMS integration, reducing turnaround time by 45%.
- Standardized LLM outputs with reusable prompt templates, tool-calling routines, and evaluation harnesses, saving 20 hours/week across teams.

— Platform & Ops —

- Engineered FastAPI “copilot” services integrating LLM APIs with strict schema validation, unit tests, and structured logs.
- Designed AWS serverless workflows (Jira → OCR via Textract/Gemini AI → structured outputs) and deployed curated annotation pipelines with Secrets Manager, SQS, and Lambda.
- Delivered an LLM-powered wellness panel webapp with Terraform IaC and lightweight backend orchestration.

— Genomics & Pipelines —

- Migrated genomic pipelines to Nextflow on AWS, reducing compute costs by 50% and delivery times by 30%.
- Integrated Franklin/Emedgene pipelines, modernized endpoints, and automated VCF/BAM transfer via S3 with secure metrics workflows.

— Leadership & Analytics —

- Directed migration from DigitalOcean/ScaleGrid to AWS (EKS, EC2, S3, Lambda/Batch), establishing CI/CD patterns for cost efficiency and reliability.
- Built analytics pipelines and executive dashboards across 11 clinical products (Airflow, MongoDB, PostgreSQL) to automate reporting.
- Shipped reproducible APIs for imputation, ancestry estimation, and polygenic risk scores (R, Python, scikit-learn).

Product Manager – Data & AI Platforms

Héritas

JULY 2021 → SEPTEMBER 2022

- Redesigned database architecture → query time 20s → 2s (–90%), significantly improving UX.
- Defined DS/Bioinformatics platform roadmap/strategy; aligned squads to measurable outcomes.
- Mentored squads and launched DTC product integrating genetic + microbiome data (discovery → release).
- Streamlined cloud pipelines, databases, and APIs; productized ingestion/processing for scale.

Technical Lead – Data Products

Héritas

OCTOBER 2020 → JUNE 2021

- Engineered/launched two MVPs validating the business → 100% sales lift.
- Designed end-to-end data flows (collection → analytics → reporting) for future AI-powered experiences.

Senior Data Scientist

Héritas

AUGUST 2019 → SEPTEMBER 2020

- Consolidated operational datasets and delivered ML models to improve forecasting and prioritization.
- Ran NGS data audits optimizing kit usage → operational costs –40%.
- Developed COVID-19 genome analysis apps/databases (R/Shiny; pipelines) for public hospital integration.

Bioinformatics Engineer – Pipeline & Platform Lead

Héritas

MAY 2016 → OCTOBER 2018

- Led development of Argentina’s first Prenatal NIPT; scaled to 40% of sample volume.
- Modernized HPC pipelines/databases; modularized code, improved resource use, standardized artifacts.
- Built Shiny tools/packages to automate analyst workflows.

Research Assistant

University of Buenos Aires

APRIL 2011 → APRIL 2016

- Built NGS pipelines, disease panels, and web tools for genomics and agro-biotech projects.

EDUCATION

M.Sc. in Data Science and Computer Engineering (Graduated with Honors)

UNIVERSITY OF GRANADA

Spain

2018 -> 2019

B.Sc. in Bioinformatics

NATIONAL UNIVERSITY OF ENTRE RÍOS

Argentina

2006 -> 2010

SKILLS & COMPETENCES

AI & LLM Ops: LangChain, LangGraph, RAG, Agents, Embeddings, Prompt Engineering, LangSmith, Vector DBs

MLOps / DevOps: Docker, GitLab CI/CD, AWS (EKS, EC2, S3, Lambda, Bedrock), Terraform, Observability

Data Engineering: Nextflow, Airflow, MongoDB, PostgreSQL, SQL

Programming: Python, R, Bash, JavaScript

ML: Scikit-learn, TensorFlow, Keras, Caret

Web Apps: FastAPI, Streamlit, R Shiny

Bioinformatics: NGS Analysis, Variant Calling, Genomic Pipelines, Nextflow, Microbiome 16S & Metagenomics, Low pass sequencing

Soft Skills: Leadership, self-driven, strategic execution, adaptability

CERTIFICATIONS

LangGraph- Develop LLM powered AI agents with LangGraph

7 HOURS

UDEMY

2025

• <https://www.udemy.com/certificate/UC-f428abc2-a893-4035-b4e3-dfe9129b4532/>

LangChain - Develop LLM powered applications with LangChain

9 HOURS

UDEMY

2024

• <https://udemy.com/certificate/UC-6b6217ff-2dc3-41d2-8148-6a4aee3021b9/>

AWS Amazon Bedrock & Generative AI - Beginner to Advanced

9.5 HOURS

UDEMY

2024

• <https://www.udemy.com/certificate/UC-1bf2067d-65eb-4c4a-8853-b6b546d9c807/>

Become a Product Manager | Learn the Skills & Get the Job

13 HOURS

UDEMY

2021

• <https://www.udemy.com/certificate/UC-c6f48313-89de-43fc-a4bf-b0a39737abf5/>

PRESENTATIONS IN CONFERENCES (SELECTED)

Machine learning methods for optimization of a control gut microbiome database in the Argentine population

ORAL

Mendoza, Argentina

2019

HONORS & AWARDS

Masters in Science and Technology Scholarship for Argentine professionals in Spain

BEC.AR PROGRAM - FUNDED BY THE MINISTRY OF EDUCATION

University of Granada, Spain

2018

PhD on strategic areas

FUNDED BY CONICET

University of Buenos Aires, Argentina

2013

• Medical Genomics and Evolution Laboratory.

RESEARCH

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