Alejandro Aboy

Senior Data & AI Engineer

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PROFESSIONAL SUMMARY

Senior Data & AI Engineer with 9+ years in data analytics and engineering, building data platforms from zero to production and, more recently, production Generative AI and Agentic AI applications on top of them. Builds LLM applications for data search, analytics report generation and automated data updates, using RAG, Model Context Protocol (MCP) and evaluation/observability harnesses. Full-stack delivery (Python, FastAPI, React/TypeScript) across multiple LLM providers (Azure OpenAI, AWS Bedrock). Ex-founder: comfortable owning discovery, build and rollout end to end and translating business problems into working AI and data solutions for non-technical stakeholders.

CORE SKILLS

AI & LLM: Generative AI, Agentic AI, LLM Applications, RAG, Vector Search (Pgvector), MCP / MCP Apps, FastMCP, Multi-agent Systems, Text2SQL, Speech-to-Text, LLM Evaluation (Evaluation-Driven Development), Guardrails, AI Observability (Opik), Context Engineering, Agno, Vercel AI SDK, Claude Code

LLM Providers: Azure OpenAI, AWS Bedrock

Engineering: Python, FastAPI, REST APIs, TypeScript, React, JavaScript, SQL, Docker, Git

Data: dbt, Prefect, Airflow, Snowflake, PostgreSQL, Aurora, ETL/ELT, Data Modeling, Metabase, Tableau

Cloud: AWS (S3, Lambda, SQS, SNS, Aurora, DMS, IAM, Bedrock), Azure OpenAI

WORK EXPERIENCE

Senior Data & AI Engineer | Workpath

February 2024 – Present | Madrid, Spain

Data Platform & AI Stack owner. Working with SaaS, CRM, Marketing and Product Analytics data.

- Built and own the **Workpath AI Agent**, an agentic LLM application with RAG (Pgvector), speech-to-text, memory, skills and tools to draft OKR definitions, find strategic risks across execution and answer data questions.
- Developed the **FastAPI** backend for the agent and migrated the frontend from Chainlit to a custom **React/TypeScript** app using the **Vercel AI SDK**.
- Delivered agentic use cases for data retrieval, analytics report preparation and automated data updates, replacing manual workflows in existing tooling.
- Implemented **AI Observability** in production with Opik to monitor agent behaviour, track tool usage and evaluate response quality. Built an evaluation harness for agents and Claude Code plugins combining code metrics and LLM-as-judge, using AI-simulated production conversations to optimise prompts and skills (Evaluation-Driven Development, guardrails).
- Built **Workpath MCP** with FastMCP and MCP Apps to extend AI capabilities outside the platform and centralise the tool library across Workpath AI projects.
- Built an **AI Analytics** project combining Metabase MCP, skills and enrichment pipelines to keep the data catalog up to date and guide LLMs toward better answers.
- Work across multiple LLM providers (Azure OpenAI, AWS Bedrock).
- Migrated production orchestration from Airflow to Prefect, reducing pipeline execution times with trigger-based and incremental workflows (Airflow, SQS, dbt).
- Migrated from a CDC setup (AWS DMS) to a single Aurora database, designing a permission architecture for secure multi-tenant access, removing replication latency and enabling faster dbt workloads.
- Built an end-to-end Slack-to-Tableau automation to onboard analytics requests from non-technical stakeholders.

Senior Analytics Engineer | AILY LABS

October 2023 – February 2024 | Madrid, Spain

- Developed SaaS database solutions applying dbt best practices, with PostgreSQL (RDS) data modeling.
- Managed orchestration workflows with Airflow.

Senior Analytics Engineer | Ironhack

January 2022 – October 2023 | Madrid, Spain

- Migrated a legacy PostgreSQL and script-based setup to a modern data stack (Snowflake, dbt, Airflow) from the ground up, handling 10-20k daily events across 15+ integrated sources.
- Implemented Snowpipe for continuous S3 ingestion and built dynamic, reusable Airflow DAGs and incremental dbt models to scale pipeline coverage.
- Built ETL/ELT pipelines with Fivetran and dbt, plus API extraction and parsing with Airflow and Mage.

- Developed a multi-touch attribution system combining web analytics and data engineering, driving a 15-20% lift in lead conversion through reshaped retargeting and email sequencing.

Web Analytics Engineer & Lead | Growth Power
May 2020 – December 2021 | Madrid, Spain

- Developed SQL models in BigQuery from web scraping and ETL processes.
- Implemented analytics tracking (Google Analytics, GA4, Google Tag Manager).

Founder & Growth Marketing Manager | WhoKnows
November 2017 – May 2021 | Buenos Aires, Argentina

- Founded and led a growth consultancy, packaging web analytics, no-code tooling and web scraping into productized data services for B2C and B2B clients: first end-to-end 0-to-1 build, owning discovery, delivery and client rollout.
- Created SQL workflows for data manipulation from web scraping and ETL processes.

EDUCATION & CERTIFICATIONS

Data Engineer Bootcamp, DataExpert.io, 2023
Data Analytics Bootcamp, Ironhack, 2022
Advertising & Communication Degree, Pontificia Universidad Católica Argentina, 2015–2018
Certifications: AWS Cloud Practitioner (Amazon Web Services), dbt Fundamentals (dbt Labs)