Alisson Rosa

Principal Engineer, Data & AI | Agentic Architect | Google Developer Expert (Cloud & AI)

Belo Horizonte, MG, Brazil (Global / Remote)

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PROFESSIONAL SUMMARY

Principal Engineer, Data & AI Architect, and Technical Leader with extensive experience designing cloud-native data platforms, distributed backends, and production agentic AI systems. Recognized by Google as a **Google Developer Expert (GDE) in Cloud & AI** and active contributor in **Gemini early-access product feedback programs**. Track record includes cutting Fintech Data Lake costs by **88%** (Azure and Databricks to BigQuery), cutting Databricks spend by **68%** with FinOps cost segmentation, working on Latin America's largest big data migration to GCP (**40 PB**) alongside **Google Professional Services (PSO)**, and building from scratch the Americas' largest livestock Data Lake (AWS to GCP) that catalyzed an acquisition by a European group.

CORE COMPETENCIES & TECHNICAL SKILLS

Programming & Distributed Systems: Go (Golang), Python, Rust, SQL, gRPC, Protocol Buffers (Protobuf), Optimistic Concurrency Control, Distributed Scheduling, Microservices, REST APIs, Linux.

Agentic AI & Machine Learning: Google Agent Development Kit (ADK Go / ADK Python), Gemini Models & API, Vertex AI, Model Context Protocol (MCP), Agent-to-Agent (A2A), Human-in-the-Loop (HITL) Workflows, LLM Orchestration, RAG.

Data Engineering & Analytics Platforms: BigQuery, Databricks, Unity Catalog, OpenMetadata, Apache Airflow, Dexaflow, Apache Spark, Dataproc, Hadoop, Oracle, Greenplum, Greenfield Data Lakes, Data Warehouse, Master Data Management (MDM), Dataform, dbt, Business Intelligence (BI), ClickHouse, PostgreSQL.

Cloud Infrastructure, FinOps & Leadership: Google Cloud Platform (GCP), Amazon Web Services (AWS), Cloud Run, Cloud Firestore, Eventarc, Cloud Tasks, Kubernetes (GKE), Docker, DevOps, CI/CD, Cloud FinOps, Engineering Management, Technical Leadership, Agile Delivery.

SELECTED ENTERPRISE CASE STUDIES & MEASURABLE IMPACT

FINOPS & CLOUD MIGRATION · BRAZILIAN FINTECH

88% Data Lake Cost Reduction (Azure and Databricks to BigQuery)

Architected and led the migration of an enterprise Data Lake from Azure and Databricks to Google BigQuery at a Brazilian Fintech, achieving an **88% reduction** in infrastructure cost while improving query SLA and data governance.

FINOPS & PLATFORM MODERNIZATION · DATABRICKS

68% Databricks Cost Reduction with FinOps

Cut Databricks cost by **68%** on a multi-tenant data platform by rolling out FinOps with per-tenant cost segmentation, while modernizing it with AWS DMS, S3, Databricks Serverless, dbt and Airflow.

LATAM-SCALE PROGRAM & GOOGLE PSO

40 PB Big Data Migration with Google PSO

As a partner engineer with **Google Cloud Professional Services (PSO)**, worked on the largest big data migration in Latin America, moving **40 PB** from Hadoop to Google Cloud with Dataproc, Dataflow, Data Fusion, BigQuery and Pub/Sub, then on further PSO engagements in Brazil.

GREENFIELD AGTECH PLATFORM · EUROPEAN M&A EXIT

Americas' Largest Livestock Data Lake, then a European Acquisition

Founded and architected from scratch an AgTech Data Lake on AWS and subsequently led its migration to GCP, establishing the largest livestock data platform in the Americas, driving revenue growth and enabling the company's acquisition by a European group.

EXPERIENCE

Staff Engineer, Data & AI · QI Network — Jun 2025 to Present
FinOps assessment targeting 30% lower multicloud spend; client allocation that cut Databricks cost by 68% with cost segmentation.

Staff Software Engineer, Data Platform · RD Station — Aug 2024 to May 2025
Data platform maturity assessment, BigQuery editions migration study and real-time architecture design.

Senior Data Manager · Acerto — Mar 2023 to Jul 2024
Built the data engineering team; cut data lake cost by 88% moving from Azure and Databricks to GCP and BigQuery; real-time data for operations.

Principal Engineer, Data & AI · Avenue Code — Aug 2021 to Feb 2023
Data lake and lakehouse architectures for clients in several industries; led MLOps teams and mentored data engineers.

Data Architect · Engineering — Oct 2020 to Aug 2021

Senior BI Analyst · BySat — Aug 2018 to Mar 2019

Professor, Data Structures · IFMG — May 2015 to Apr 2016

Principal Data Engineer · Prodap — Mar 2019 to Oct 2020

BI Analyst and Python Developer · Freelance — Nov 2014 to Jul 2018

IT Technician to Business Owner · Astecon, Tradição, Neotec
Aug 2004 to Dec 2014

OPEN-SOURCE & SYSTEMS ARCHITECTURE

GOOGLE / ADK-GO · PROPOSED UPSTREAM

Firestore Session Service for Google ADK Go v2

Proposed a Firestore-backed session service, **`google.golang.org/adk/session/firestore`** (PR #2058 under review, issue #2057), for durable HITL agent pause and resume on serverless GCP stacks, with optimistic concurrency control and 91.4% test coverage.

Go 1.26 · Firestore · gRPC — **github.com/google/adk-go/pull/2058**

OPENMETADATA & APACHE AIRFLOW · UPSTREAM

Data Catalog Governance, Unity Catalog & Airflow 3

`open-metadata/OpenMetadata`: reported (#32063) and fixed (**PR #32065, merged**) a login dropped when the ServiceWorker fails; reported the Unity Catalog **`BROWSE`**-only ingestion gap (#33505). **`apache/airflow`**: reported two Airflow 3 UI bugs fixed upstream within a week (#67883, #67884).

OpenMetadata · Unity Catalog · Airflow — **OpenMetadata #32065**

DEXADATA / DEXAFLOW · CREATOR & PRINCIPAL ARCHITECT

Dexaflow: Airflow-Compatible Orchestrator in Go

Re-engineered Apache Airflow's scheduling and REST/UI control plane into a single Go binary, eliminating Python GIL bottlenecks while providing Kubernetes pod-per-task isolation and GitOps-native DAGs.

Go · Kubernetes · Workflow Orchestration — **github.com/dexadata/dexaflow**

AWARDS, COMMUNITY SPEAKING & LANGUAGES

GOOGLE RECOGNITION

Google Developer Expert (Cloud & AI) & Gemini Feedback

Official Google Developer Expert in Cloud & AI and active contributor in Google's early-access Gemini product feedback loops.

Verify in GDE Directory

SPEAKING & MENTORSHIP

TDC · DevFest BH · Data Science Academy

Speaker at **The Developers Conference (TDC)** and **DevFest BH**; Organizer & Speaker at **Data Analytics Meetup**; Technical Mentor at **Data Science Academy**.

LANGUAGES

Portuguese & English

Portuguese: Native

English: Intermediate (B2, Professional Technical Working Proficiency)