ROBERTO TORRES

Data Engineering Leader | Data Architect

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SUMMARY

Data leader and architect with 15+ years at IBM, Cargill, Pfizer and HP, highly skilled in analytics, data engineering, data architecture and team leadership. Lead architect for a Customer 360 / MDM platform (130M+ records, 25 countries). At Cargill, led a ~45-person organization, grew the team from 8 to 22 with 0% attrition and built analyses that found $3M in savings. Completing an MSc in Data Science & AI (University of Liverpool).

EXPERIENCE

IBM — Data Architect | 03/2026 - Present

- Lead architect for an Oracle CDH to GCP migration of a Customer 360 / MDM platform (130M+ records, 25 countries); lead a 5-person architecture sub-team.
- Use GenAI (Claude) with a 4-person team for CDH model analysis, source-to-target mapping, SQL and Airflow/dbt code, and documentation.
- Mapped end-to-end lineage of all 5 integration flows and found the root causes of ETL load failures.
- Manage data masking and role-based access protecting personal data across 130M+ customer records.
- Work with event-driven integration on GCP Pub/Sub (~1 GB/day) and a ~1 TB history used for match & merge and deduplication.

ThruIQ — Independent Data & AI Consultant (Self-employed) | 09/2025 - 02/2026

- Built end-to-end data platforms on Snowflake, dbt and AWS using a Medallion architecture (bronze, silver, gold layers).
- Automated testing and deployment of data pipelines with CI/CD on GitHub Actions.
- Built predictive models with Snowflake ML and Python.

Cargill — Senior Software & BI Manager | 12/2021 - 09/2025

- Built Power BI analyses of warehouse device usage and contractor billing that uncovered $3M in savings, including $1M from stopping over-reported contractor hours.
- Designed a Power BI alerting system that flagged time-entry gaps, preventing finance-close issues and recovering ~$60K/yr in billable revenue.
- Led a ~45-person software & BI organization (22 direct reports + ~23 contractors: developers, Scrum Masters, QA, PMs) across LATAM and North America, delivering 20+ solutions in 3 years with 94% client satisfaction.
- Grew the team from 8 to 22 through 14 hires and promoted 8 people, with 0% attrition over 3 years and a 96% engagement score.
- Negotiated timelines, staffing and skills with regional stakeholders; managed ~$200K/yr in vendor contracts and a ~$20K/yr training budget.

Cargill — Senior Lead, Data Analytics | 02/2020 - 12/2021

- Redesigned the core reporting architecture (SQL, R, Power BI): ELT runtime went from 7 hours to 47 minutes, and releases from 16 hours to about 1 hour.
- Replaced manual spreadsheet reporting with 45+ self-service Tableau dashboards; refreshes went from 3+ hours to seconds.
- Defined data governance standards (documentation, QA, data modeling) for the analytics team, reducing monthly support tickets from 4+ to 1.

Pfizer — Data Analytics Specialist | 07/2017 - 01/2020

- Built Spotfire dashboards and scorecards that reduced manual reporting effort by ~42% for audit and compliance teams.
- Tech lead and product co-lead of governed data platforms for quality, audit and compliance in regulated pharma, traceable to financial reporting.
- Migrated Excel-based processes into Oracle with Alteryx and SQL; data loads dropped from 3 days to 10 minutes.

Hewlett Packard / DXC Technology — BI Specialist | 06/2015 - 06/2017

- Backend engineer in a 12-person team that built HP Earth Insights with Conservation International, a big data system forecasting population trends of endangered species.
- Scrum Master and lead developer for an 18-member BI team (Power BI, Tableau, Vertica, SAP HANA).
- Retained clients weighing a move to a big data provider by showing the team's existing analytics capabilities; client retention up 17%.

Hewlett Packard — Account Delivery Lead | 06/2012 - 06/2015

- Led 25 developers supporting 400+ applications for an oil & gas client in Canada, raising SLA compliance from 58% to 89%.
- Raised client satisfaction from 74% to 91% and cut monthly quality complaints from 34% to under 7%.
- Reduced delivery time for small application enhancements from 8 to 5 weeks.

Hewlett Packard — Technology Consultant | 06/2010 - 06/2012

- Delivered SAP FICO/ABAP solutions that cut daily manual finance operations from 4 hours to under 5 minutes.
- Built an SAP solution that cut vendor receipt reconciliation for the billing team from 3 days to 1 hour; still in use today.

RECOGNITION

- Rated top performer in 75% of years at each employer; promoted 3 times at HP to expert level and promoted to manager at Cargill.
- 1st place in HP's Innovation Challenges program, with ideas ranked first in 7 of 12 challenges.

EDUCATION

- **MSc Data Science & Artificial Intelligence** — University of Liverpool | Expected 08/2027 · *Capstone project in progress*
- **MBA, Finance** — Instituto Tecnológico de Costa Rica | 2012
- **BSc Computer Engineering** — Instituto Tecnológico de Costa Rica | 2007

CERTIFICATIONS

- SnowPro Core Certification — Snowflake (2026)
- Postgraduate Program in Data Science & Business Analytics — University of Texas at Austin (2025) · incl. A/B testing
- Organizational Leadership — Harvard Business School Online (2023)
- Certified Scrum Master & Certified Product Owner — Scrum Inc. (2023)

SKILLS

Data Engineering & Migration: Legacy-to-cloud migration (Oracle CDH to GCP), ETL/ELT, CDC, source-to-target mapping, data lineage, SQL, Python, dbt, Airflow, Astronomer Cosmos, Informatica, event-driven integration (Pub/Sub), Git, GitHub Actions (CI/CD), Docker

Data Modeling & Architecture: Dimensional modeling (Kimball: facts and dimensions), Medallion architecture, data products, MDM (match & merge, deduplication), data warehousing (BigQuery, Snowflake)

AI-Assisted Engineering: GenAI assistants (Claude) for data model analysis, mapping, code generation and review, and documentation; Snowflake ML and Python predictive models

Data Quality & Governance: Data quality, lineage, metadata (Collibra), data masking, role-based access, governance standards

Cloud & Platforms: GCP (BigQuery, Pub/Sub), Snowflake, AWS, Azure (storage), Terraform (hands-on lab)

Leadership: Led teams up to 22 direct reports + ~23 contractors, 14 hires, 8 promotions, 0% attrition; architecture sub-team lead; stakeholder and vendor management; Agile/Scrum

BI: Power BI, Tableau, Spotfire

LANGUAGES

Spanish (native) · English (C1, IELTS 7.5, 2024)