

# Carlos Carrillo

AI-Driven Engineer | Data - Developer - DBA | Snowflake - Azure SQL - ADX/KQL - Python | Remote (EN/ES)

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Mexico - Remote | Availability: Remote Only (Worldwide)

**Open to Work:** Data Engineer, Cloud Data Consultant, Solutions Architect, AI Engineer, DBA, Integration Lead, Developer

**Languages:** Spanish (Native), English (Professional Working)

## Summary

Senior Data Engineer, AI builder, and Cloud Consultant with 20+ years turning complex data problems into production systems. I architect end-to-end solutions -- from incremental ETL pipelines and Snowflake/Azure SQL data warehouses to RAG-powered chatbots, physics-based mining simulations, real-time dashboards (34 KPIs across 7 mine sites), and algorithmic trading engines with 50K-trial hyperparameter optimization. My core stack is deep SQL + Python, extended with AI tooling I actually build with -- not just use: LLM evaluation pipelines, vector embedding search, Kalman-filter calibration, and Bellman-Ford graph algorithms. I deliver in high-volume, mission-critical environments where uptime, cost efficiency, and long-term maintainability are survival -- cloud-native, operationally practical, and designed to evolve beyond prototypes. Fully remote for years with US and LATAM teams -- structured delivery, documentation-driven workflows, and clear technical communication across time zones.

## Experience

### Data Integration Lead - Hexaware Technologies

2025-03 -- Present | Mexico · Remote

- Led Snowflake → Azure SQL integration; deployed 14-table incremental sync pipeline with MERGE procedures, 15-min scheduling, HASH delta detection, E2E verification (~590K rows) across DEV→TEST→PROD
- Designed watermark-based incremental loads using business timestamps and DW\_MODIFY\_TS fallbacks for Connected Operations dashboards
- Built snowrefactor, Python CLI for Snowflake view regression testing: automated DDL pull, deployment, schema comparison, and benchmarking in dbt-style CTE workflows
- Optimized Snowflake views via deep CTE-pushdown across UNION ALL architectures (65s→9.7s, 5x). Benchmarked Snowflake→ADX migration: SENSOR\_SNAPSHOT\_GET 30s→0.15s (200x)
- Developed IROC Video Wall (Streamlit, 7 mining sites, 60s auto-refresh, AI chat) and Mining Operations Chatbot (NL queries across ADX+Snowflake). Docker, Azure App Service, Azure AD SSO
- Built schema extraction across 3 Azure SQL environments, KQL/ADX infrastructure (2 clusters, 20+ site DBs), config-driven execution with Entra ID/Kerberos auth
- Leveraged GitHub Copilot (Enterprise) for pipeline architecture, SQL generation, benchmarking, and dashboard development
- Built physics-based stockpile simulation with 3D block modeling for ore tracing through comminution circuits (crushers → mills → flotation). Predictive mineralogy tracking, belt-scale calibration with Kalman filtering, and crush-out time estimation across multiple mine sites

*Technologies: Snowflake, Azure SQL, ADX/KQL, Azure Functions, App Service, Python, Streamlit, Docker, GitHub Enterprise, Copilot, MERGE/Upsert, CDC/Delta, CTE Refactoring, ETL/ELT, IoT Sensor Data, Mining Analytics, Entra ID/Kerberos, CI/CD*

### Senior Database Engineer - FusionHit

2024-09 -- 2025-03 | Remote

- Built PostgreSQL audit framework with per-object templated DDL exports (Nunjucks/Jinja)
- Delivered 20+ database tickets (index optimization, FK remediation, schema renames, timestamp normalization)
- Authored Technical Design Documents for Student Concierge, Relief Vet, VWR, Appointment Waitlist, and Feature Flags databases
- Created regression test suite for all critical tickets with offline validation
- Developed PostgreSQL Best Practices guide for Azure Flexible Server
- Integrated Jira, Harvest API, and Microsoft Graph API workflows

*Technologies: PostgreSQL, Azure Database for PostgreSQL, Node.js, JavaScript, Nunjucks, pg\_stat\_statements, EXPLAIN, Jira, Harvest API, GitHub Copilot*

## **Data Engineer & AI Developer - dataqbs**

2011-01 -- Present | Guadalajara, Mexico · Remote

- Delivered data engineering for VCA Animal Hospitals, C&A; México, BCG, Moviro, Svitla, Quesos Navarro
- Built MEMO-GRID: advanced grid trading bot with Optuna HPO (50K trials), 23x BTC multiplier, attribution analysis (95.7% alpha)
- Designed Bellman-Ford & triangular crypto arbitrage scanner across 9 exchanges with live swap execution
- Built declarative YAML-driven rule engine for LLM response auditing with 5-dimension scoring
- Implemented multi-account IMAP email collector with 5-label classifier (anti-phishing, domain scoring)
- Created this portfolio site ([dataqbs.com](http://dataqbs.com)) with RAG chatbot, vector embeddings, and Groq LLM streaming

*Technologies: Python, SQL Server, PostgreSQL, Snowflake, SSIS/SSRS/SSAS, Tableau, Power BI, Dataiku DSS, Azure Data Factory, Node.js, ccxt, pandas, Astro, Svelte*

## **ETL Engineer - SVAM International Inc.**

2022-11 -- 2024-09 | Mexico · Remote

- Led migration from on-prem SQL Server and SSIS to Snowflake, designing new fact/dimension models for student certification analytics
- Automated JSON ingestion from Salesforce APIs into Snowflake using Python
- Built data validation and reconciliation tests, ensuring end-to-end load accuracy
- Delivered curated datasets via SharePoint, improving visibility for academic stakeholders
- Supported data transformation and scheduling through custom scripts and CI-controlled processes

*Technologies: Snowflake, SQL Server, SSIS, Salesforce API, SharePoint*

## **Senior ETL Developer - Svitla Systems, Inc.**

2021-05 -- 2023-10 | Mexico · Remote

- Designed and deployed the company's ETL pipeline
- Developed SSIS packages for on-prem extractions and orchestrated updates with Azure Data Factory
- Built flexible star-schema data models to scale as reporting needs grew
- Partnered with BI teams to publish Power BI dashboards on Azure

*Technologies: Azure SQL, SSIS, Azure Data Factory, Power BI, SQL Server*

## **Snowflake Administrator - Epikso Mexico**

2022-01 -- 2023-01 | Mexico · Remote

- Managed Snowflake security, role-based access, and performance tuning
- Implemented Infrastructure-as-Code for automated environment setup
- Monitored query performance and optimized storage/micro-partitioning
- Integrated CI/CD pipelines via Bitbucket, improving deployment control

*Technologies: Snowflake, Bitbucket, CI/CD, Infrastructure-as-Code*

## **Data Technical Lead - Jabil**

2018-01 -- 2022-03 | Guadalajara, Mexico

- Directed migration from Hadoop + Impala + SQL Server PDW to Snowflake on AWS, enabling faster analytics
- Built streaming and task-based orchestration using native Snowflake automation features
- Designed landing, staging, and refined zones for scalable ingestion and transformation
- Supported distributed teams in manufacturing analytics modernization

*Technologies: Snowflake, AWS, Hadoop, Impala, SQL Server PDW*

## **Software Engineer Lead - 3Pillar Global**

2016-06 -- 2018-01 | Guadalajara, Mexico

- Developed EDI data integrations and reporting layers with SQL Server, SSIS, and SSRS
- Maintained reliable data synchronization across multiple external partners

*Technologies: SQL Server, SSIS, SSRS, EDI*

## **SQL SSRS Consultant - HCL Technologies**

2014-08 -- 2016-06 | Guadalajara, Mexico

- Migrated and optimized Actuate Reports into SSRS and SharePoint
- Developed performant SQL logic for enterprise reporting

*Technologies: SQL Server, SSRS, SharePoint, Actuate*

## **Database Analyst II - Jabil**

2011-08 -- 2014-08 | Guadalajara, Mexico

- Created and maintained ETL workflows using SSIS, integrating Oracle, SAP, and MySQL systems
- Ensured 24/7 database reliability and performance optimization

Technologies: SQL Server, SSIS, Oracle, SAP, MySQL

## **BI Developer - C&A; México**

2005-09 -- 2011-08 | Guadalajara, Mexico

- Designed OLAP cubes (SSAS) and interactive SSRS reports for retail analytics
- Built ETL workflows from mainframes and regional stores to centralized data warehouse
- Maintained high-performance SQL environments across business units

Technologies: SQL Server, SSAS, SSRS, SSIS, OLAP

## **Developer - FIRMEPLUS**

2004-04 -- 2005-05 | Guadalajara, Mexico

- Software and database development (PHP, SQL Server, MySQL)

Technologies: PHP, SQL Server, MySQL

## **Developer Trainee - Jabil Circuit de México**

2003-08 -- 2004-03 | Guadalajara, Mexico

- Supported database and web app development

Technologies: SQL Server, Web Development

## **Certifications**

- Generative AI Professional Certificate by Snowflake -- Snowflake (2026) [\[Active\]](#)
- Microsoft Certified: Fabric Data Engineer Associate -- Microsoft (2025) [\[Active\]](#)
- Microsoft Certified: Azure Data Fundamentals -- Microsoft (2025) [\[Active\]](#)
- Microsoft Certified: Azure Fundamentals -- Microsoft (2025) [\[Active\]](#)
- dbt Fundamentals -- dbt Labs (2025) [\[Active\]](#)
- MCSA: SQL Server 2012/2014 -- Microsoft (2015) [\[Active\]](#)
- MCSA: SQL Server 2008 -- Microsoft (2012) [\[Active\]](#)
- MCPS: Microsoft Certified Professional -- Microsoft (2012) [\[Active\]](#)
- MCTS: SQL Server 2008, Business Intelligence Development and Maintenance -- Microsoft (2011) [\[Active\]](#)
- MCTS: SQL Server 2008, Implementation and Maintenance -- Microsoft (2010) [\[Active\]](#)
- SnowPro Core Certification -- Snowflake (2024) [\[Expired\]](#)

## **Skills**

**Languages:** Python, SQL, JavaScript / TypeScript, KQL (Kusto), Bash, Node.js, PowerShell

**Data & Cloud:** Snowflake, Azure (SQL, ADF, Functions), Azure Data Explorer (ADX), Microsoft Fabric, Cloudflare (Pages, Workers, AI)

**AI & ML:** LLM Evaluation & Prompt Eng., RAG (Retrieval-Augmented Gen.), Snowflake Cortex AI, Vector Embeddings & Search, GitHub Copilot SDK, Optuna (HPO), Fine-Tuning (PEFT / LoRA)

**Libraries & Frameworks:** pandas / NumPy, ccxt (crypto exchanges), Streamlit, Playwright, Astro / Svelte, Nunjucks / Jinja2, Rich / rapidfuzz

**DevOps & Tools:** GitHub Actions CI/CD, Poetry / pip, ruff / pre-commit / pytest, Docker, QEMU / KVM, Linux (Pop!\_OS)

**Databases:** SQL Server, Snowflake, PostgreSQL, Azure SQL / Azure PostgreSQL, SQLite

## **Education**

**Master** in Business Administration (MBA) -- Universidad de Guadalajara (2008--2010)

**Bachelor Degree** in Computing Science -- Universidad de Guadalajara (1999--2003)