Juan Carlos Muñoz Meza
Data Scientist Jr| Construction Data Specialist

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LINKEDIN

ABOUT ME

Data Scientist transitioning from Architecture, skilled in the end-to-end data process—from wrangling to predictive modeling—with a focus on creating complete, scalable solutions.

WORK EXPERIENCE

- **Data Analyst / Endeavour Silver- January-December 2025**
- Engineered an anomaly detection model prioritizing Recall maximization to identify fuel theft and machinery failures. The solution reduced hazardous material waste by 70% and mitigated operational risks across the fleet.
- Architected hybrid ETL pipelines (Python + Power Query) to ingest and standardize heterogeneous data, slashing manual processing time by 45% despite limited SQL infrastructure.
- Designed executive-level Power BI dashboards to monitor key mining inputs, translating complex operational data into clear KPIs that facilitated strategic decision-making for senior leadership.
- Designed the logical relational database schema (ERD) to unify decentralized branch data, establishing the foundational architecture for the company's migration to a centralized SQL environment.
- **Assistant Architect Administrator/Corporación Lantana Febraruy/2024 - November/2024**
- Weekly reports on costs from subcontractors were shared with project managers and directors via PowerBI, improving payments by 18%.
- I designed an Excel Macro to assess Physical Progress vs Financial Progress across various projects, ensuring the discrepancy between both did not exceed 15% of the total budget
- **Project Architect/ARXEARQUITECTOS January/2023- October/2023**
- Optimized installation budgets by 8% by architecting a parametric Excel model for hydraulic pipe requirements, applying complex nested logic to handle multi-level structure calculations and reduce material waste.

TECHNICAL PROJECTS

Civil Works Cost Predictor | Python, Random Forest, Scikit-Learn

Developed a Random Forest regressor achieving 95% accuracy in construction cost forecasting. Overcame industry data scarcity by engineering a realistic synthetic dataset validated by Civil Engineering domain experts, incorporating logical material dependencies and real-world data inconsistencies (noise) to ensure model robustness.

Algorithmic Market Valuation (NVIDIA) | Python, yfinance API, Financial Modeling

Built a valuation script utilizing the yfinance API to ingest real-time market data. Implemented Damodaran's methodology to calculate Intrinsic Value vs. Market Price, assessing potential valuation bubbles in the AI sector.

EDUCATION

IBM Coursera - IBM Data Science Professional Certificate//August 2025 - December 2025

Bootcamp A2 - Data Analysis Courses // August 2024 - February 2025

Bachelor's Degree in Architecture - University of Guanajuato // August 2018 - December 2022

SKILLS

Technical Skills Languages & Core:	Python, SQL, Excel
Libraries & ML:	Pandas, Numpy, Scikit_Learn, Matplotlib
Tools & Viz:	PowerBI, Tableau, Jupyter Notebooks

LANGUAGES

Spanish (Native)   English (B1+)