

ANTONNY PICALUA

MLOps | <https://josepicalua.github.io>

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Data Analyst specialized in **Advanced Business Intelligence and Machine Learning**, with proven experience in **fraud detection, behavioral pattern recognition, churn prediction, and predictive modeling**. Skilled in designing **end-to-end analytical architectures**, integrating **data engineering, automation, and visualization** to deliver actionable insights that enhance **strategic decision-making and operational efficiency**.

I combine a **strong analytical mindset** with practical expertise in **building scalable predictive models**, optimizing **data pipelines**, and implementing **customer churn analysis frameworks** that identify early indicators of customer cancellation, enabling proactive retention strategies in complex enterprise environments.

EXPERIENCIA

Data Analyst – Advanced Predictive Projects

Dec 2024 – Present | Remote

- Conducted **end-to-end predictive analysis** using Python, leveraging Pandas, NumPy, and Scikit-learn to build reusable preprocessing and modeling pipelines.
- Designed and implemented **churn prediction models** to identify early signals of customer cancellation, improving retention strategies and revenue forecasting.
- Developed **fraud detection frameworks** based on anomaly detection, feature importance, and ensemble models to reduce false positives and strengthen risk assessment.
- Managed and analyzed structured datasets across **finance, healthcare, and operational domains**, ensuring data consistency and integrity.
- Performed **statistical testing (A/B testing, confidence intervals, p-values)** to validate hypotheses and guide data-driven decision-making.
- Addressed **imbalanced datasets** using advanced resampling techniques such as **SMOTE, under sampling, and stratified k-fold cross-validation**.
- Executed **SQL queries (PostgreSQL & MySQL)** to extract, transform, and combine multi-source datasets for analytical modeling.
- Applied **feature engineering and data cleaning workflows**, including outlier handling, missing value imputation, and normalization.
- Practiced **machine learning for classification and regression tasks**, integrating model evaluation metrics (ROC-AUC, precision-recall, F1-score).
- Created **mini case studies** connecting business objectives with technical implementation to showcase real-world impact.

EDUCACIÓN

- **Técnico en Informática de Sistemas**
Servicio Nacional de Aprendizaje SENA
mayo 2023 – mayo 2025 (Terminado)
- **Certificaciones y Cursos Complementarios**
- **Platzi (2024 – 2025)**
 - **Databases with SQL** – Query optimization, joins, and relational modeling.
 - **Data Visualization for BI** – Dashboards and storytelling with data.
 - **PostgreSQL** – Advanced SQL queries, indexes, and performance tuning.
 - **AWS: Cloud Computing Fundamentals** – Cloud architecture and data services.
 - **Análisis de Datos con Python** – Data wrangling, visualization, and predictive analysis.
 - **Mathematics for Data Science: Descriptive Statistics** – Hypothesis testing and variance analysis.
 - **ETL and Data Ingestion with Python** – Automated data pipelines for BI and ML.

APTITUDES

Data Analysis & Machine Learning

- Advanced analytics, **predictive modeling**, **churn & fraud detection systems**
- **Exploratory Data Analysis (EDA)**, hypothesis testing, and data-driven decision-making
- **Feature engineering**, model evaluation (ROC-AUC, F1-score, precision-recall)
- **Python (Pandas, NumPy, Scikit-learn, Fast API)** and automation workflows

Inteligencia Empresarial & Data Visualization

- **Power BI, Tableau**, and dashboard storytelling for strategic insights
- **Data Visualization for BI** and KPI-driven reporting
- **ETL / Data Ingestion** pipelines for analytics and cloud environments (AWS)

Data base & Data Engineering

- **PostgreSQL, MySQL, and PL/SQL** – query optimization, joins, stored procedures.
- **Data modeling**, integrity management, and database performance tuning
- **Git** version control, **SQL scripting**, and process automation

Soft & Analytical Skills

- Critical and analytical thinking, problem-solving mindset
- Teamwork, adaptability, and continuous learning
- Clear communication and attention to detail
- Multilingual: **Spanish (Native), English (Intermediate), Portuguese (Intermediate)**