

Guillermo Barrena

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Professional Experience

Economist focused on data with practical experience in statistical analysis, data processing, and automation to support evidence-based decision-making. Skilled in the use of Python, SQL, Pandas, and Power BI to manage real data sets, optimize ETL processes, and offer clear and useful data visualizations. Proven ability to contribute to and lead critical projects, including the monitoring of the IPC and industrial surveys, guaranteeing data integrity and operational efficiency.

Work Experience

Data Analyst – Instituto de Investigaciones Económicas y Estadísticas (IIIE - INDEC)

July 2024 - December 2024 | San Juan, Argentina

- Extracted, transformed, and loaded data for the calculation of the IPC and PGB of San Juan, contributing to the transformation and creation of data bases for the Manufacturing Industry Survey 2024, aiming to optimize processing times and ensure data quality.
- Automated processes using Python, Pandas, SQL, Excel, and Power BI, improving efficiency and precision in data collection.

Education

Bachelor's Degree in Economics

Catholic University of Cuyo | March 2019 - August 2025

Postgraduate Diploma in Data Science

Catholic University of Cuyo | July 2024 - August 2025

Certifications

Cambridge First Certificate (B2) – Cambridge Assessment English

Advanced level of English, with proven comprehension, oral expression, and writing skills in professional contexts.

Technologies

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| • Python | • Excel | • AWS |
| • SQL | • Docker | • PowerBI |
| • PostgreSQL | • GitHub | • TensorFlow |

Proyectos

Medical Image Diagnosis

- Developed CNN and logistic regression models to detect anomalies in X-ray images and compared the rendering using statistical methods to evaluate precision and accuracy. Additionally, utilized AWS to process the images and train the models, optimizing the workflow and scalability of the project.

Web Scraping and Storage

- Extracted prices from a website using Python, loaded the data into PostgreSQL (via Docker) and DuckDB, and ran SQL queries using MotherDuck, SQLAlchemy, and Pandas.

Pipeline Automation

- Orchestrated a data pipeline from end to end using MageAI for ingestion, cleaning, and updating.