# **GUILLERMO BARRENA**

Data Scientist & Analyst

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#### **ABOUT ME**

Data science-oriented economist with a solid background in statistics, programming, and database management. I have experience working with real-world data, developing ETL processes, automating tasks, and delivering clear and relevant statistical analyses and data visualizations to support decision-making. I contribute to evidence-based management and excel in adaptability, continuous learning, and a commitment to ongoing improvement.

#### **WORK EXPERIENCE**

#### **Data Analyst**

# Instituto de Investigaciones Económicas y Estadísticas (IIEE - INDEC)

July - December 2024

I worked as a Data Analyst at the Institute of Economic and Statistical Research (IIEE), a branch of INDEC in San Juan province. I collaborated with the Gross Geographic Product (GGP) and Consumer Price Index (CPI) teams. For the GGP, I participated in collecting and processing external data, calculating variables for the commerce sector, and updating information on the institutional website. I was an active contributor to the 2024 Manufacturing Industry Survey (MIS) in San Juan, where I helped analyze, monitor, and transform collected data for subsequent loading and analysis, as well as create databases. In the pricing area, I was responsible for monitoring special operations, controlling and analyzing variations, evaluating the basket of goods, and developing more efficient survey models through automation. I used tools such as Python, Pandas, SQL, Excel, and Power BI for these tasks.

#### **ACADEMIC BACKGROUND**

#### Universidad Católica de Cuyo

Bachelor's Degree in Economics | March 2019 - July 2025

# Universidad Católica de Cuyo

Diploma in Data Science | July 2024 - Present

### **TECHNOLOGIES**

Python

Pandas

Motherduck

TensorFlow

SQL

Docker

Mage Al

Power BI

PostgreSQL

Github

Excel

AWS (Basic)

# **LANGUAGES**

**Spanish English** 

Native Advanced (Cambridge First Certificate – B2)

#### **HIGHLIGHTED PROJECTS**

- Medical Image Diagnosis: Developed both CNN and logistic regression models to detect anomalies in Xrays. Conducted performance comparison using statistical methods to evaluate accuracy and precision.
- Web scraping and storage: extracted price data from a website and loaded it into PostgreSQL (via Docker) and DuckDB. Executed SQL queries from Python using MotherDuck, with SQLAlchemy and Pandas.
- Pipeline Automation: Full process orchestration using Mage for data ingestion, cleaning, and updating.