J. ABEL ROSALES GUZMÁN

Ph.D. in Sciences | Data Scientist

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🌐 abelrg25.github.io/en/projects   🔗 abel-rosales-guzmán-71aa1b192

PROFESSIONAL SUMMARY

Data scientist with a PhD background and experience in multivariate analysis, time series, and machine learning models. Proficient in tools such as Python (pandas, scikit-learn, matplotlib, scikit-learn), R, and Tableau.
Developed reproducible analysis workflows, predictive models, and interactive visualizations to extract actionable insights.
Familiar with relational databases (MySQL, BigQuery).
Strong ability to communicate results to both technical and non-technical audiences, collaborate in multidisciplinary teams, and apply results-driven solutions in sectors such as banking and marketing.

RELEVANT EXPERIENCE

Data Scientist (Jr. Researcher) - UNAM

📅 2020-2024   📍 CDMX

Temporal Analysis of Observational Data | Automation and Complex Data Analysis

- Processed and analyzed large multivariate scientific datasets (over 300 GB), optimizing workflows for time series analysis
- Automated data processing pipelines using Python (Jupyter Notebooks, Numpy, Scipy, Pandas), increasing efficiency and reproducibility by 50%.
- Applied Monte Carlo simulations for high-precision parameter estimation from incomplete observational data.
- Developed advanced visualizations and effectively communicated results to both technical and non-technical audiences.
- Documented methodologies in reproducible notebooks and published results in peer-reviewed scientific journals: Clic to see article 1, Clic to see article 2.

MOST RECENT PERSONAL PROJECTS

Bank Marketing Campaign Analysis (SQL, Python, and Tableau) | 2025

- Analyzed real banking campaign data to identify factors influencing customer conversion to term deposits.
- Wrote SQL queries to calculate KPIs such as conversion rate by contact channel, age group, and month.
- Built interactive dashboards in Tableau and created complementary visualizations using Python.
- Reproducible project developed as part of my personal portfolio (Clic to see the project).

Bicycle Usage Data Analysis for a Marketing Campaign (R) | 2025

- Analyzed public rental data to extract insights and trends aimed at increasing annual subscriptions and support business growth.
- Performed data cleaning, selection and exploratory data analysis (EDA) using R (tidyverse, ggplot2).
- Identified key patterns and relationships across variables through basic statistical tools and advanced data visualization.
- Developed as a reproducible and public project for my personal portfolio (Clic to see the project).

RECENT CERTIFICATES

📈 **Google Data Analytics Professional Certificate**
Link to the certificate

</> **Applied Machine Learning in Python**
Link to the certificate

TECHNICAL SKILLS

- **Programming languages:** Python (NumPy, pandas, SciPy, Scikit-learn), R, Bash
- **Databases:** SQL (basic and intermediate queries)
- **Data visualization:** Tableau, PowerBI, Matplotlib, Excel (pivot tables, charts)
- **Statistical analysis:** Descriptive statistics, multivariate analysis
- **Data tools:** Jupyter Notebooks, Google Sheets, LaTeX
- **Operating systems:** Windows, MacOS, Linux

SOFT SKILLS

- Analytical and critical thinking
- Effective communication of results
- Teamwork in multidisciplinary environments
- Complex problem-solving
- Attention to detail

EDUCATION

Ph.D. in Sciences
Institute of Astronomy, UNAM
📅 2020 – 2024

M.Sc. in Sciences
Institute of Astronomy, UNAM
📅 2017 – 2019

B. Sc. in Physics
Faculty of Sciences, UNAM
📅 2010 – 2017

IDIOMAS

Spanish: Native   ●●●●●
English: B2-C1   ●●●●○