J. Abel Rosales Guzmán

PhD in Sciences | Data Analyst

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PROFESSIONAL SUMMARY

Data Analyst with a PhD in Sciences, specialized in processing and analyzing large volumes of multivariate and time series data. Proven experience in developing reproducible data workflows, automating analysis using Python, and applying advanced statistical techniques such as Principal Component Analysis (PCA), Monte Carlo simulations, and neural networks. First author of peer-reviewed scientific publications. Currently focused on applying these skills in industries such as banking and marketing, with particular interest in campaign analysis, customer behavior, and process optimization. Proficient in tools such as SQL, Tableau, and Excel to generate actionable insights and create effective data visualizations. Strongly oriented toward problem solving, clear communication, and measurable impact.

RELEVANT EXPERIENCE

UNAM

Data Analyst (Junior Researcher)   Jan 2020 - Jun 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: View article 1, View article 2.

PERSONAL PROJECTS

Global Climate Trend Analysis (Python and Tableau) | 2025

- Analyzed publicly available global temperature data to identify long-term warming trends.
- Applied statistical techniques such as linear regression and moving averages using Python.
- Created visualizations with Matplotlib and interactive dashboards in Tableau to communicate findings.
- Reproducible project available as part of my public portfolio (View project on Github).

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 data analysis portfolio (View project on Github).

CERTIFICATIONS

Google Data Analytics Professional Certificate
Coursera, Feb 2025. Certificate link

Introduction to Data Science in Python
Coursera, Aug 2024. Certificate link

ACHIEVEMENTS

1.
Published 2 peer-reviewed scientific articles based on data analysis, showcasing strong analytical skills.

2.
Processed over 300 GB of data, streamlining the workflow and cutting processing time by 50%.

HARD SKILLS

- Python, R, Bash, LaTeX
- Tableau, MS Excel, Google Sheets
- BigQuery, MySQL
- macOS, Linux, Windows
- Descriptive statistics
- Multivariate analysis

SOFT SKILLS

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

EDUCATION

Institute of Astronomy - UNAM
PhD in Sciences
2020-2024

Institute of Astronomy - UNAM
Master of Science
2017-2019

Faculty of Sciences - UNAM
BSc in Physics
2010-2017

LANGUAGES

- Spanish (Native)
- English (B2 - C1)