

J. ABEL ROSALES GUZMÁN

Data Analyst

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



SUMMARY

Scientist and data analyst with 4+ years of experience in data analysis, programming (Python, R, SQL), and business-focused visualization (Tableau, PowerBI). Skilled at turning data into actionable insights and clear recommendations.

EXPERIENCE

Data Analyst (Junior Researcher)

UNAM

Mexico City

Project: Temporal Analysis of Observational Data 2023–2024

- Processed and analyzed multivariate datasets collected over different periods, optimizing workflows to improve the efficiency of time series analysis in dynamic systems.
- Applied techniques for incomplete data reconstruction and spectral analysis to identify variability patterns in complex datasets.
- Automated analytical workflows using Python (Jupyter Notebooks, NumPy, SciPy, Matplotlib), significantly reducing manual processing time.
- Developed advanced visualizations to communicate key findings to both technical and non-technical audiences.
- Documented methodologies and results, culminating in the publication of findings in a peer-reviewed international journal (<https://doi.org/10.1051/0004-6361/202349112>).

Project: Automation and Analysis of Complex Data 2020–2023

- Processed and analyzed large-scale multivariate datasets (50 GB) from scientific observations, optimizing data processing and analysis pipelines.
- Automated preprocessing, data cleaning, and predictive model generation using Python (Jupyter, NumPy, SciPy, Astropy).
- Implemented statistical simulations (Monte Carlo methods) for robust parameter estimation from observational data.
- Developed data visualization tools to interpret internal structures in complex physical systems and support data-informed decision-making.
- Documented workflows to ensure reproducibility and published results in a peer-reviewed international journal (<https://doi.org/10.1051/0004-6361/202245370>).

CERTIFICATES



Google Data Analytics Professional
Certificate
See Certificate

TECHNICAL SKILLS

- Programming languages:** Python (NumPy, pandas, SciPy, Matplotlib), 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, Linux, macOS

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 (Astrophysics)

Instituto de Astronomía, UNAM

2020 – 2024

M.Sc. in Sciences (Astrophysics)

Instituto de Astronomía, UNAM

2017 – 2019

B.Sc. in Physics

Facultad de Ciencias, UNAM

2010 – 2017

LANGUAGES

Spanish - Native
English - B2

