

Jafet I. López Sánchez



Data scientist.

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Birth Date: 18-04-1997.

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- [Linkedin profile](#) | [Portfolio](#)

Soft skills

- Adaptability.
- Teamplayer.
- Problem solving.
- Bilingual (Spanish and English).
- Effective communicator
- Analytical, critical thinking abilities.

Professional summary

Data Scientist with a background in astrophysics and geoscience, skilled in data analysis, machine learning, and scientific research. Demonstrated experience in data collection, preprocessing, and statistical analysis, along with expertise in Python, SQL, and data visualization. Proven ability to communicate complex findings effectively to diverse audiences and to solve complex analytical problems. Currently seeking a data science position to leverage my technical and analytical skills in a business-oriented context.

Technical Skills

Programming Languages: Python (2.7, 3.0), R, CShell, SQL (MySQL, SQLite).

Machine Learning & Deep Learning: TensorFlow, Keras, PyTorch, Scikit-Learn, SciPy, Transformers, LangChain, HuggingFace.

Data Processing & Feature Engineering: Pandas, Numpy, Matplotlib, Seaborn.

Model Deployment & Visualization: Plotly, Dash.

Tools & Platforms: JupyterLab, Google Colab, GitHub, LaTeX, Linux.

APIs & Data Scraping: BeautifulSoup, Requests, Folium.

Work Methodologies: Scrum, Kanban.

Experience

IRyA AGN Group - Researcher and Speaker

February 2018 - 2022, Morelia, Michoacán

- Developed Python scripts for data preprocessing, visualization and feature engineering to streamline data pipelines, significantly reducing time required for model training and evaluation (pandas, numpy, matplotlib).
- Designed and implemented Machine Learning (ML) models for data analysis, (Scikit-Learn, Scipy, Keras) to extract and analyze key patterns in galactic behavior.
- Applied ML techniques to identify and classify complex data patterns, contributing to publication in the Astrophysical Journal (APJ): [Link to publication](#).

Serendipity Science Group - Speaker and Teacher

August 2015 - 2021, Morelia, Michoacán

- Taught advanced topics in calculus, statistics, and ML providing a solid theoretical foundation to students and engaging them in practical applications of ML techniques.
- Conducted public lectures, incorporating data visualizations to communicate machine learning applications in scientific research effectively to diverse audiences.

Projects

(Full details in portfolio:
[Portfolio Link](#))

SpaceX launch - project: A full study of the properties of the SpaceX launches and implementation of M.L. classification algorithms to predict whether the first stage will land or not.

Laptops Pricing - project: A full study of the relations between different laptops components and its impact on the laptops price. Finally an Implementation of M.L. regression algorithms to predict laptops price.

Rain prediction - project: An exploration of atmosphere physical properties to see how they correlate each other and an Implementation of M.L. classification algorithms to predict rain occurrence.

Education

International Business Machines Corporation (IBM) -

AI Engineering Professional Certificate

Octubre 2024 - 2025

Developed, fine-tuned and deployed deep learning models including large language models (LLMs). Mastered supervised and unsupervised learning. Developed transfer learning apps in NLP using language model frameworks like LangChain, Hugging Face, and PyTorch. Understand GPT, LLaMA, and BERT models, for building NLP-based apps.

International Business Machines Corporation (IBM) -

Data Science Professional Certificate

December 2023 - 2024

Gained hands-on experience in data science and machine learning, focusing on real-world applications of data processing, model development, and model evaluation.

Instituto de Radioastronomía y Astrofísica (IRyA) -

Master in Astrophysics

August 2020 - 2023, Morelia, Michoacán

Universidad Nacional Autónoma de México (UNAM) -

Geoscientist (Space Science)

August 2015 - 2019, Morelia, Michoacán

Centro de Bachillerato Tecnológico Industrial y de Servicios (CBTis) - Mechatronics Technician

August 2012 - 2015, Morelia, Michoacán
