

Education

UNIVERSITY OF PADUA Physics of Data, MSc.	Padova, Italy	09/2023-Today
UNIVERSIDAD DE LOS ANDES Physics Major. German Language and Culture Minor.	Bogotá, Colombia	08/2016-02/2021
COPENHAGEN UNIVERSITY Experimental Physics/Big Data Analysis.	Copenhagen, Denmark	01/2019-08/2019
HARVARD SUMMER SCHOOL Principles of Physics.	Cambridge, MA	06/2015-08/2015

Experience

PINGAHLA

May 2022 – Today

Data Engineer

- Developed a high-accuracy (93%) forecasting model for the retail sector, applying advanced statistical techniques and machine learning algorithms. Cleaned and preprocessed extensive retail datasets, ensuring high-quality data foundations for modeling.
- Assessed and mitigated risks of overfitting and bias, reinforcing the model's predictive reliability and applicability. Implemented the ChatGPT API to facilitate natural language interactions with the data, streamlining analysis workflows. Adopted PrivateGPT, conducting rigorous model comparisons and testing to safeguard data privacy without compromising on functionality.
- Refined the LLaMA 2 7B model through targeted fine-tuning on domain-specific datasets, achieving tailored improvements in forecast precision and relevance.
- Created and constructed APIs in Flask with pipelines for data processing across various databases and file formats. Managed and implemented data pipelines for clients utilizing IICS and Snowflake as ETL tools.
- Developed a standardization ETL process to review, correct and test task flows for the client. Responsible for updates, QA migration of revised tables and handling in IICS. Proposed and organized documentation to enhance team productivity.

ASPAEN GIMANSIO IRAGUA

May 2021 – May 2022

Mathematics and Physics Teacher

- Provided instruction for topics in physics and mathematics for students in grades 6-11, including 32 hours of weekly classroom instruction. Focused on individual student progress, developed strategies to address specific challenges and provided support to improve performance.
- Tracked and monitored comprehension and progress, planned lessons, and prepared reports highlighting student strengths and weaknesses and proposed action plans. Optimized and implemented a new physics curriculum to align with international and national examination topics, resulting in improved student results post-pandemic. Prepared students for exams by focusing on key topics, question types, and time management.

Skills & Interests:

Technical:

- Machine Learning/Scikit-learn/XGBoost/CNN
- Unix Scripting/SQL
- Python/Flask
- ETL/IICS/Talend/Snowflake
- C++
- Data Visualization/Matplotlib
- Talend Data Integration Certified Developer
- Cloud Data and Application Integration R38 Certification

Languages:

- Spanish: native language
- English: fluent (reading, writing, speaking)
- French: reading, writing
- German: reading
- Italian: reading, writing.