

DATA ANALYST · PHYSICIST

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"Many years later as he faced the firing squad, Colonel Aureliano Buendía was to remember that distant afternoon when his father took him to discover ice" — Gabriel García Márquez.

Education

UNAM (Universidad Nacional Autónoma de México)

Mexico City, Mexico

MASTER OF SCIENCE DEGREE (PHYSICS), HONORABLE MENTION

January.2017 - June.2019

• Thesis: Unification of gamma, beta and carbon-nitrogen spectrometry measurements for composition simulation and efficiency correction of aquatic sediments, R.

Universidad Nacional de Colombia

Bogota, Colombia

BACHELOR'S DEGREE IN PHYSICS

July.2010 - June.2016

• Thesis: Systematic analysis of nuclear reactions of alpha particles, FORTRAN.

Coursework

Ministry of Information Technologies and Communications of Colombia and Correlation One

Colombia

FALL 2020 DATA SCIENCE FOR ALL

August 2020 - November 2020

• Graduated with Honors and Outstanding Teamwork.

e-courses

COURSERA.ORG

- · Applied Data Science with Python: Introduction, Machine Learning and Text Mining. University of Michigan
- (In process) Applied Data Science with Python: Plotting, Charting & Data Representation and Social Network Analysis. University of Michigan
- (In Process) Fundamentals of Scalable Data Science. IBM

Skills__

Main Python (numpy, pandas, Scikit-Learn, NLTK, Data Cleaning), R (Shiny), ŁTĘX, C++

General FORTRAN, PostgreSQL

Languages Spanish (Native), English (Advanced level)

Experience

TheMadFox - Colombia Remote Work

Freelance: Translate of autonomous routines built in R into Python. This includes

November 2020 - Present

- Download and merge data using API.
- Extrapolate data.
- Create plot reports using Python Plotly.
- · Email reports.

Data Science for All (DS4A) - Remington University (Colombia)

Remote Work

Data Analyst: Predict the dropout probability of a student using data from 1996 to 2020. Python and R.

August 2020 - November 2020

- Define and extract the dropout variable.
- Clean and merge the data.
- Define the Machine Learning Model (Random Forest).
- Locate the data and the model into AWS (EC2).
- Show and use the model in a Front End (Shiny R).

UNAM Mexico City, Mexico

Science Programmer: Simulation of the efficiency ϵ of an HPGe detector using MonteCarlo (C++) and experimental data.

January 2018 - June 2018

Investigation Groups

Global and Climate Change Group

INSTITUTO DE CIENCIAS DEL MAR Y LIMNOLOGÍA - UNAM

Mexico City, Mexico

January 2018 - December 2019

Isotopic Geochemistry and Radiochronology Laboratory

INSTITUTO DE CIENCIAS DEL MAR Y LIMNOLOGÍA, CAMPUS MAZATLAN - UNAM

Sinaloa, Mexico June 2018 - August 2018

Research Stay

OAK RIDGE NATIONAL LABORATORY

Tennessee, USA

June 2016 - August 2016

Nuclear Physics Group

Bogota, Colombia

Universidad Nacional de Colombia

June 2014 - December 2016

Articles

- Systematic analysis of α elastic scattering with the Sao Paulo potencial, AIP Conference Proceedings 1753 (2016)
- Synthesis, structural and morphological characterization of the perovskite LaYbO₃, J. Physics. Conf. Series. 687 012104 (2016)