



# Félix Ernesto Charry Pastrana

DATA ANALYST · MASTER OF SCIENCE · PHYSICIST

Viaducto 38, 101, Benito Juárez, PC 03010, Mexico City, Mexico · Willing to relocate? Yes!

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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.*

## Profile

I am a data analyst and **Python** programmer with a background in **simulation** and **modelling**. I have acquired this experience throughout my working career (**Machine Learning** models: the probability of drop-out - Python, records in web pages - Python), academic (detector modelling - C++, simulation of nuclear reactions - FORTRAN, creation elemental composition - R) and numerous courses.

At present, **I am looking to expand my experience as a data analyst - Back End**, willing to learn new knowledge and provide the most reliable programming and statistical level. I am a committed and team worker (Graduated with Honors and Outstanding TeamWork, Ministry of Information Technologies and Communications of Colombia).

## Experience

### TheMadFox - Colombia

Remote Work

COLLABORATION IN THE DEVELOPMENT OF SOFTWARE AND DATA SCIENCE PROJECTS

April 2021 - May 2021

- Download data from API, merge it, filter it and create a end-point using Django
- Extract information from html files and create features
- Analyze and interpret the data and build-optimize the machine learning model

### TheMadFox - Colombia

Remote Work

FREELANCE: TRANSLATE OF AUTONOMOUS ROUTINES BUILT IN R INTO PYTHON. THIS INCLUDES

November 2020 - January 2021

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

### 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  $\epsilon$  OF AN HPGE DETECTOR USING MONTECARLO (C++) AND EXPERIMENTAL DATA.

January 2018 - June 2018

## Skills

**Main** Python, R,  $\LaTeX$ , C++, Git, Django

**General** FORTRAN, PostgreSQL

**Languages** Spanish (Native), English (Advanced level)

## Education

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### 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.

### 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

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### e-courses

COURSERA.ORG

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

## Investigation Groups

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### Global and Climate Change Group

Mexico City, Mexico

INSTITUTO DE CIENCIAS DEL MAR Y LIMNOLOGÍA - UNAM

January 2018 - December 2019

### Isotopic Geochemistry and Radiochronology Laboratory

Sinaloa, Mexico

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

June 2018 - August 2018

### Research Stay

Tennessee, USA

OAK RIDGE NATIONAL LABORATORY

June 2016 - August 2016

### Nuclear Physics Group

Bogota, Colombia

UNIVERSIDAD NACIONAL DE COLOMBIA

June 2014 - December 2016

## Articles

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- Systematic analysis of  $\alpha$  elastic scattering with the Sao Paulo potencial, AIP Conference Proceedings 1753 (2016)
- Synthesis, structural and morphological characterization of the perovskite  $\text{LaYbO}_3$ , J. Physics. Conf. Series. 687 012104 (2016)