

# 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 Diango
- 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

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

Mexico City, Mexico

January 2018 - June 2018

## Skills\_

Main Python, R, &TeX, C++, Git, Django

**General** FORTRAN, PostgreSQL

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

#### 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.

## E-courses\_

University of Michigan coursera.org

Specialized Program: Applied Data Science with Python

- · Introduction.
- Machine Learning.
- · Text Mining.
- (In process) Plotting, Charting & Data Representation.
- (In process) Social Network Analysis.

University of Michigan coursera.org

Specialized program: Web Applications for Everybody

May, 2021

• Introduction to Structured Query Language (SQL).

**IBM** coursera.org

Specialized program: Advanced Data Science with IBM

May, 2021

• Fundamentals of Scalable Data Science. **PySpark**.

(In process) Advanced Machine Learning and Signal Processing.

DeepLearning.AI coursera.org

Specialized program: Deep Learning Specialization

• (In process) Neural Networks and **Deep Learning**.

DeepLearning.Al coursera.org

Specialized Program: Machine Learning Engineering for Production (MLOps)

• (In process) Notificaciones Introduction to Machine Learning in Production.

# **Investigation Groups**

#### **Global and Climate Change Group**

Mexico City, Mexico

June, 2021

June, 2021

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

- Systematic analysis of  $\alpha$  elastic scattering with the Sao Paulo potencial, AIP Conference Proceedings 1753 (2016)
- Synthesis, structural and morphological characterization of the perovskite LaYbO<sub>3</sub>, J. Physics. Conf. Series. 687 012104 (2016)