Edison**Florez**

Data Scientist — Business Analyst — Researcher

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Profile: 8+ years of experience specializing in statistical analysis, predictive modeling, data processing and mining algorithms. My passion lies in extracting insights from data through critical thinking and an understanding of underlying concepts. My background spans biotech startups and the financial industry, creating, developing, testing, and deploying scalable and adaptive data pipelines to translate business into deliverables.

Interests:

Technical Skills:

- Python
- C/C++
- Fortran
- SQL
- MongoDB
- Git
- Docker
- AWS
- PowerBI
- Excel
- Linux
- Bash

General Skills:

- Storytelling
- Leadership
- Project Management
- Data Visualization
- Agile Methodologies
- Data Preparation
- Data Base structure
- Coach/Mentor

Professional Experience

■ Data Scientist

Aug.2021 - Aug 2023

HelicoBio [helico.bio], New Zealand

I created and validated scalable data pipelines to advance plant biology research, collaborating with cross-functional groups to design new functionalities and ensure their seamless deployment. My role involves collecting and preparing data, extracting insights, and creating easy-to-understand visuals. I contributed to all phases of the software development lifecycle, including the development, testing, and deployment of new functionalities using Python and C++. **Achievement:** I led the development of a data pipeline that enabled the execution of comprehensive all-atom molecular dynamics simulations. This advancement has reduced wet-lab workflows by 20%, significantly enhancing our understanding of protein function in the context of designing new proteins.

■ Freelancer Editor

Enago [enago.com], Remote **Since Apr.2023**

MDPI [mdpi.com], Remote **Apr.2018 - Dec.2018**

I provide Copy Editing services, refining grammar and scientific terminology. Additionally, I offer Substantive Editing, improving manuscript structure, clarifying ambiguous text, and verifying citation relevance. **Achievement:** I assisted authors aiming for high-impact journals in adhering to journal styles, monitored writing and editing activities, and ensured content clarity and accuracy increasing by more than 30% desk acceptance.

■ **Teaching/Lab Assistant and Demonstrator** **Aug.2018 - Mar.2020**
Massey University [massey.ac.nz], New Zealand

I provide instruction and guidance to students in workshops, focusing on intricate subjects such as advanced mechanics, thermodynamics, electricity, magnetism, and circuit analysis. Through my role, I significantly contribute to improving students' comprehension of these intricate physical concepts and principles using Python. **Achievement:** I played a key role in designing the Standard Operating Procedures (SOP) for the Physics Lab. This design has been pivotal in automating experiments and utilizing tools like Jupyter, Pandas, and Matplotlib for data analysis and report presentation.

■ **Data Scientist** **Aug.2016 - Mar.2018**
EY [ey.com], Colombia.

I specialize in crafting tailored solutions through thorough business and technical analyses, primarily within SAP for Analytical Banking and Business Intelligence. My expertise lies in developing complex models to address economic challenges, and implementing them to provide customized solutions. I designed and implemented mathematical models to tackle financial inquiries, offering detail-oriented and pragmatic resolutions. **Achievement:** I designed a Python module to read, clean, and encrypt financial information for generating test cases to train new users of a bank's bonds portfolio. This innovation has halved the time required for designing and implementing new training sessions.

■ **Graduate Teaching Assistant** **Sept.2015 - Aug.2016**
University of Antioquia [udea.edu.co], Colombia.

I guide advanced college students through the intricate domain of Quantum Mechanics. My role involves ensuring that students achieve proficiency in the language of quantum mechanics, comprehend relevant methods, and grasp key concepts. **Achievement:** I played a significant role in the development of new modules, "Computational Quantum Mechanics with Python", which were implemented within the Quantum Chemistry subject. These modules have notably enhanced students' understanding of the quantum language and its practical application in the field of computational chemistry.

Open-Source Contributions

■ **PTMC:** [**github.com/e-florez/PTMC**]
An advanced Fortran code that uses the Parallel Tempering Monte Carlo (PTMC) method for an accurate and efficient prediction and analysis of phase transitions in atomic and molecular clusters. **Role:** Data Scientist and Lead Developer.

■ **AMCESS:** [**github.com/e-florez/amcess**]
Atomic and Molecular Cluster Energy Surface Sampler (AMCESS) is an open-source Python package that automates the exploration of the Potential Energy Surface (PES) for atomic and molecular clusters. **Role:** Lead Data Scientist and Architect.

Academic Background

→ **Ph.D. in Computational Physics,** Massey University, New Zealand **Jul.2023**

→ **M.Sc. in Computational Chemistry,** University of Antioquia, Colombia **Dec.2014**
→ **B.Sc. in Chemistry,** University of Antioquia, Colombia **Jul.2012**

References

Available upon request

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Yours sincerely,

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