EdisonFlorez Ph.D., M.Sc.

Data Scientist | Business Analyst | Computational Physicist

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Technical Skills: Python • C/C++ • Fortran • Data Base (SQL/NoSQL) • Git • Docker • AWS • Power BI • Tableau • Linux • Bash • OpenMP • HPC • Testing/TDD • CI/CD • LaTeX

Key Skills: Complex problem solving • Critical thinking • Storytelling • Creativity • Leadership • Teamwork • Project Management • Communication • Time management

Profile: As a data scientist with a profound background in statistics, linear algebra, quantum mechanics, and mathematics, I bring over eight years of experience, having served as a data scientist, business analyst, researcher, developer, and team leader. My passion lies in extracting fundamental insights from data, thinking critically, and understanding the rationale behind each task. With my ability to learn quickly and motivation to take on challenges, I have excelled as a team player and individual contributor, taking calculated risks and showing initiative. In my spare time, I enjoy intellectual pursuits like drawing and writing about science fiction. I am a beer and cycling enthusiast, although not all simultaneously.

Professional Experience

- **Data Scientist** Aug.2021 - Aug 2023
  HelicoBio [helico.bio], New Zealand

  COMPUTATIONAL PROTEIN DESIGNER: Leveraging in-depth knowledge of biophysics and protein design, I created and validated scalable pipelines to advance plant biology research. My role involves collecting and preparing data, finding 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++.

- **Freelancer Editor**
  Enago [enago.com], Remote Since Apr.2023
  MDPI [mdpi.com], Remote Apr.2018 - Dec.2018

  COPY & SUBSTANTIVE EDITING: I perform Copy Editing, refining grammar and scientific terminology; and Substantive Editing, enhancing manuscript structure and content, clarifying ambiguous text, and verifying citation relevance. This helps authors aiming for high-impact journals and those requiring extensive language assistance.

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

  PHYSICS: Instruct and advise students in workshops, with an emphasis on intricate topics such as advanced mechanics, thermodynamics, fluid dynamics, magnetic field theory, electromagnetism, and circuit analysis. My role is instrumental in enhancing students' understanding of these complex physical concepts and principles.

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

  SAP-IMPLEMENTATION AND BANK-ANALYZER: Develop tailored solutions based on thorough business and technical analyses, primarily within SAP for Analytical Banking and Business Intelligence. I specialize in crafting complex models and implementing them, addressing economic problems through customized solutions. Additionally, I developed and implemented mathematical models related to financial inquiries, providing detail-oriented and pragmatic solutions.

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

  QUANTUM & COMPUTATIONAL CHEMISTRY: Guide advanced college students through the intricate domain of Quantum Chemistry. I ensure students achieve proficiency in the quantum language, comprehend relevant methods, and grasp key concepts. Furthermore, I facilitate their understanding of the interpretation and application of these principles in chemically interesting systems.

Open-Source Contributions

- **Parallel Tempering Monte Carlo (PTMC):** This project introduces an advanced Fortran (2003) code that uses the Parallel Tempering Monte Carlo (PTMC) method for an accurate and efficient analysis of phase transitions in atomic and molecular clusters. Code available on github.com/e-florez/PTMC
- **Atomic and Molecular Cluster Energy Surface Sampler (AMCESS):** An open-source Python package that automates the exploration of the Potential Energy Surface (PES) for atomic and molecular clusters. Code available on github.com/e-florez/amcess

Academic Background

- **Doctor of Philosophy** July 2023
  Computational Physics, Massey University, New Zealand
- **Master of Science** December 2014
  Computational Chemistry, University of Antioquia, Colombia
- **Bachelor of Science** July 2012
  Chemistry, University of Antioquia, Colombia

Fellowships and Awards

- **Ph.D. in Physics:** Massey University Doctoral Scholarship
- **M.Sc. in Chemistry:** Honours and research work with meritorious award.

References available upon request

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Yours sincerely,

Edison Florez
edisonffh@gmail.com