Carlos Enrique Nosa Guzman

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Skills

Programming: MATLAB, Microsoft Office, Latex, Jupyter Notebooks, Power BI, Cloud computing (AWS), Python, Julia, R, SQL.

Languages: Spanish (Native), English (Intermediate), French (Beginner).

Soft skills: Time management, effective communication, teamwork and collaboration, adaptability, problem-solving, analytical thinking

Education

BS   **National University of Colombia**, Mathematics   Bogota, Colombia   Mar 2020 – May 2025

- Grade: 4.7/5.0
- **Coursework:** Numerical analysis, probability and statistics, discrete mathematics and applied mathematics.
- Conducted research on the Metropolis-Hastings algorithm for Bayesian inference in inverse problems, focusing on calibrating a model based on dynamical systems with simulated and real data.
- Participated in a research group focused on programming and numerical methods, working on optimization problems and the numerical approximation of partial differential equations using tools like Python and Julia.

Professional experience

National University of Colombia, Academic Direction, Mathematics tutor   Bogota, Colombia   Aug 2022 – Mar 2025

- Provided personalized tutoring in basic mathematics and received training in teaching strategies. Supported introductory math courses through classroom assistance, academic guidance, and collaborative work with instructors.

National University of Colombia, Faculty of Sciences, Specialist in Mathematical Modeling and Data Analysis   Bogota, Colombia   May 2024 – Oct 2024

- Developed AI models based on graphs to analyze climate change data in the Mojana region, using Python, cloud services, and data mining and data analysis techniques. Contributed to the design and implementation of a framework for integrating information from multiple models, supporting both conceptual and technical aspects. Assisted with literature review, data analysis, and preparation of technical documentation for the project.

National University of Colombia, Research and Extension Institute, Advisor in typing and transcription of documents   Bogota, Colombia   Oct 2024 – Mar 2025

- Guided the formatting and structuring of academic and technical documents using LaTeX, ensuring professional quality and compliance with formal standards.