

## Curriculum Vitae

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### Contact Information

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  - **Certificate/Credentials:**  
[https://drive.google.com/drive/folders/1djFDlZ4om2H\\_V6F1vmlP\\_4T8bApVqETn?usp=drive\\_link](https://drive.google.com/drive/folders/1djFDlZ4om2H_V6F1vmlP_4T8bApVqETn?usp=drive_link)
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### Professional Summary

Environmental Science Specialist with a strong interdisciplinary background in climate science, environmental chemistry, geospatial analysis, and AI applications. As a Biology (Environmental Sciences) graduate student, I have delivered measurable research outcomes by integrating machine learning and environmental data analysis.

At the **Northeast High-Performance Computing Center**, I built neural network models that improved climate forecasting accuracy and enabled actionable agricultural yield predictions using Sentinel 1/2 imagery. My contributions led to more precise long-term climate assessments and supported regional planning.

Previously, I co-authored peer-reviewed research on Fe-based nanoparticles for water purification, approaching the work through the lens of green chemistry. I contributed to the experimental design and data analysis that led to significant reductions in uranium levels in contaminated water sources, aligning with sustainable remediation practices. As a virtual research assistant, I provided statistical insights that helped shape development policy briefs.

I excel at communicating scientific reasoning, identifying model limitations, and translating environmental data into real-world impact—qualities that align with the demands of training and evaluating next-generation AI models.

Fluent in English (C2), skilled in Python, R, and geospatial tools like ArcGIS/QGIS.

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### Education

- **Bachelor's Degree in Biology (Environmental Sciences)** | University of Buenos Aires | 2013 - 2025 (expected)
- **Certificate in Advanced Water, Soil, and Air Treatment** | Polo de Educación Superior de Escobar | 2023
- **Certificate in Environmental, Energy, and Circular Economy Management** | Instituto Argentino de Normalización y Certificación (IRAM) | 2024
- **Certificate in Data Analysis** | IBM SkillsBuild - Guayerd | 2024

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## Professional Experience

### Machine Learning for Large Modelling

*Northeast High-Performance Computing Center, National University of the Northeast* | 2024 - Present

- Processed large datasets using satellite imagery and machine learning models.
- Developed climate prediction algorithms to enhance agricultural forecasting.
- Applied neural networks for climate data analysis and pattern recognition.

### Virtual Research Assistant & Data Analyst

*Solidary empowerment foundation (ONG)* | 2024 - 2025

- Conducted statistical analysis on financial datasets.
- Assisted in data visualization and report preparation for decision-making.

*Institute of Development Studies, University of Sussex* | 2022 - 2023

- Conducted statistical analysis on socioeconomic datasets.
- Assisted in data visualization and report preparation for research publications.

### Research Assistant & Co-Author (Nanoparticles Project)

*Institute of Environmental Engineering Research (3iA), National University of San Martin* | 2019 - 2022

- Investigated the use of Fe-based nanoparticles for water purification.
- Published research findings in peer-reviewed journals.

### Science Communicator & Educational Guide

*Ministry of Science and Innovations - Tecnópolis Argentina* | 2016 - 2018

- Designed interactive educational activities to promote STEM awareness.
- Delivered science workshops for children and general audiences.

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## Publications & Conferences

- **Journal Article:** "Removal of Uranyl (U VI) in Water Using Composites Based on Supported Fe Nanoparticles (FeNPs)." [DOI:10.1002/cjce.25236](https://doi.org/10.1002/cjce.25236)
- **Conference Speaker:** Argentine Congress of the Society of Toxicology and Environmental Chemistry (SETAC), 2022. Presented research on nanoparticle-based water treatment.

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## Technical Skills

- **Programming & Data Analysis:** RStudio, Python, SQL

- **Machine Learning & Deep Learning:** PyTorch, neural networks, predictive modeling
  - **Geospatial & Climate Data Processing:** Machine learning, neural networks, satellite image analysis
  - **Data Visualization:** Matplotlib, Power BI
  - **Software & Tools:** ArcGIS, QGIS, Jupyter Notebook, Visual Studio Code
  - **ISO Standards & Environmental Management:** ISO 14001, ISO 9001
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## Languages

- **Spanish:** Native
- **English:** C2 (Fluent)
- **German:** A2 (Basic)