

GASTON EMANUEL CISTERNA

Nuclear Engineer and Nuclear Physicist

Italian | Date of birth: 31/10/1995



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RESUME

I am a nuclear physicist with a Bachelor's degree in Nuclear Engineering from the Balseiro Institute (a five-and-a-half-year program) and a Master's degree from the Erasmus Mundus Joint Master Degree in Nuclear Physics (a two-year program). Having studied and collaborated around the globe, I excel at adapting to new environments and working effectively in diverse teams. My strong analytical skills, adaptability, and global perspective drive my commitment to innovative projects.

EDUCATION

NUCLEAR ENGINEERING (Combined Bachelor's and Master's Degree)

BALSEIRO INSTITUTE: San Carlos de Bariloche, Argentina • January 2015 – June 2020

5 and a half year-university degree. Scholarship holder.

Final grade: 8.08/10. Fail in less than 3 exams was required to be a Balseiro Institute's student.

Comprehensive knowledge in neutron physics, energy and mass transfer, and nuclear reactor design and safety. Hands-on experience with the RA-6 research reactor, including practical training in reactor operations and safety protocols.

NUCLEAR PHYSICS (Master's Degree)

NUCPHYS: Spain, Italy and France • September 2022 – September 2024

2 year postgraduate program. Scholarship holder.

Final grade: 9.01/10. Fail in less than 3 exams was required to keep the scholarship.

Program calendar:

- University of Sevilla • Sevilla, Spain • September 2022/ February 2023.
- University of Catania • Catania, Italy • February 2023 / September 2023.
- University of Caen Normandie • Caen, France • September 2023 / February 2024.
- Instituto de Física Corpuscular (IFIC) • València, Spain • February 2024 / Currently working.

Comprehensive knowledge in quantum mechanics, atomic physics, and nuclear structure. Specialized in medical physics, focusing on dosimetry and radiotherapy, as well as in accelerator physics and detector instrumentation. Hands-on experience in neutron and gamma radiation imaging, complemented by strong skills in data analysis and machine learning for scientific applications.

EXPERIENCE

INSTITUTO DE FÍSICA CORPUSCULAR (IFIC)

València, Spain

Researcher

February 2024 – Currently

- Characterization of Scintillator crystal and electronic nuclear chain for imaging equipment based on gamma and neutron radiation. .
- Key concepts: Nuclear Interaction with matter, Nuclear detectors, Machine Learning algorithms to reconstruct images of the irradiation sources.

ARGENTINE LABORATORY OF NEUTRONS BEAMS (LAHN)

Buenos Aires, Argentina

Researcher

June 2020 – June 2021

- Get integral analysis to implement a neutron beams of the RA-10 (Reactor Argentino Número 10, in Spanish) to be used in a SANS facility.
- Key concepts: Data Analysis, Monte Carlo Simulation, Python programming, Neutron Physics.

EXXON

Buenos Aires, Argentina

Data Analyst

June 2021 – June 2022

- Prediction to estimate pattern in demands and failures of services and resources of the company.
- Key concepts: Data Analysis, Python Programming, Cloud Infrastructure.

NATIONAL TECHNOLOGICAL UNIVERSITY

Buenos Aires, Argentina

Tutor

June 2020 – June 2022

- University Tutor of the third-year Subject Operative Investigation of the Industrial Engineering career.

ADDITIONAL QUALIFICATIONS

Technical High School Diploma Six-year program with training in: • Carpentry • Welding • Residential and industrial electricity • Electric motors: single-phase (e.g., capacitor-start, shaded-pole) and three-phase motors (e.g., squirrel cage, wound rotor). • Machining (lathe operation).

SKILLS & INTEREST

Technical: Python, C, C++, Root, Linux terminal, PowerShell, JavaScript, MatLab, SQL, LaTeX.

Language: English (C1) • Spanish (Native) • Italian (B1)