



Alberto Campuzano Solórzano

Date of birth: 30 Apr 2003 | **Place of birth:** Cantabria | **Gender:** Male | **Phone:** (+34) 673112794 (Mobile) | **Email address:** albertocampuzanosolorzano@gmail.com

• ABOUT MYSELF

Recent graduate with a **Double Degree in Physics and Mathematics** from the University of Cantabria, with specializations in **Fundamental Physics** and **Pure Mathematics**. My academic focus lies at the intersection of theoretical and mathematical physics. For my Bachelor's Theses, I applied algebraic topology methods to explore transversality in **group theory**, and investigated the concept of Universality in **self-organized criticality** via computational simulations of stochastic models. To complement my rigorous theoretical foundation, I have acquired practical, industry-level experience in **Data Science** and **Artificial Intelligence**. I am highly driven by the rapid growth of these technological sectors and continuously seek to apply my analytical background to complex machine learning challenges.

• EDUCATION & TRAINING

1 Sep 2021 - 30 Jun 2026 - CANTABRIA, SPAIN

DEGREE IN PHYSICS- UNIVERSIDAD DE CANTABRIA

Specialization in Fundamental Physics

- General Relativity
- Particle Physics
- Quantum Mechanics

Bachelor's Thesis: *Optimal Paths in Correlated Media*

- Non-equilibrium Statistical Physics
- Critical Phenomena
- Universality Classes

1 Sep 2021 - 30 Jun 2026 - CANTABRIA, SPAIN

DEGREE IN MATHEMATICS- UNIVERSIDAD DE CANTABRIA

Specialization in Pure Mathematics

- Algebraic Topology
- Differentiable Manifolds
- Fundamental Group
- Covering Space Theory

Bachelor's Thesis: *A Topological Proof of the Nielsen-Schreier Theorem*

- Formal Proof Verification using Lean 4

• WORK EXPERIENCE

6 APR 2026 - 5 JUL 2026 - SANTANDER, SPAIN

GENERATIVE DESIGN INTERNINGECID

Intern, Generative Design Department (o "Generative Design Intern")

- **Researched, selected, and evaluated** AI algorithms and machine learning models applied to the automated generation of engineering solutions (including structural, geometric, and optimization tasks).

- **Developed and prototyped** generative design tools that output optimal or near-optimal engineering solutions based on specific design parameters and constraints.
- **Prepared, cleaned, and analyzed** technical datasets required for model training and validation (Data Preprocessing).
- **Integrated** the developed AI modules into the company's existing workflows and software platforms.
- **Authored** comprehensive technical documentation for the developed solutions, detailing methodologies, results, and conclusions.
- **Collaborated** in team meetings and technical review sessions to track and refine ongoing projects.

16 JUN 2025 - 29 AUG 2025 - SANTANDER, SPAIN

DATA CONSULTANT INTERNEVENBYTES

Collaborated on data science projects centered on statistical forecasting and complex process optimization. Applied machine learning techniques and mathematical modeling to analyze and optimize operations. Engineered cloud-based data automation and management solutions to ensure efficient extraction, storage, and processing.

Key Responsibilities:

- **Developed** predictive time series models leveraging statistical methods and machine learning algorithms.
- **Modeled and formalized** complex processes to enable rigorous mathematical analysis and optimization.
- **Optimized** data pipelines utilizing mathematical algorithms and advanced analytics tools.
- **Automated** data extraction and update workflows using Python and Google Cloud Platform (Cloud Functions, Cloud Scheduler, Terraform).
- **Implemented** robust storage and processing solutions for large-scale datasets.
- **Assisted** in the design and front-end development of internal web applications using Angular.

30 NOV 2019 - 30 NOV 2024

PROFESOR PARTICULAR

- **Monitored** student learning progress and academic performance.
- **Mentored** students in setting and achieving their personal and educational goals.
- **Prepared** students for university entrance exams (EBAU) and other standardized tests.

ENTRENADOR DE FÚTBOL

- **Coached and prepared** football goalkeepers at intensive training camps.
- **Instilled** core sports values and guided their application to daily life.
- **Taught** emotional management in sports, translating these skills to personal and professional environments.

1 JUN 2023 - 1 SEP 2023

ASISTENTE DE TIENDACARREFOUR

- **Assisted and advised** customers.
- **Restocked** inventory and maintained visual merchandising.
- **Prepared and verified** orders.

● **HONOURS AND AWARDS**

30 NOV 2020 Ayuntamiento de Camargo

Certamen El Pozon de la Dolores 2nd Place, XXI "El Pozón de la Dolores" Poetry Contest: Awarded for the poem "*Preso de las ganas de libertad*" (Prisoner of the Desire for Freedom).

30 NOV 2019 Universidad de Cantabria

- **6th Place, Physics Olympiad:** Recognized at the annual Physics competition organized by the University of Cantabria.

Feria de la Ciencia 1st Place, Science Fair (University of Cantabria): Awarded for the development of an automated page-turning device designed to enhance accessibility to textbooks for individuals with disabilities, including research into broader cross-disciplinary implementations.

Cantabrobots 2nd Place, Robotics Design Competition: Awarded for the design and development of a multi-purpose autonomous robot, featuring capabilities in line-tracking, light and color detection, and environmental temperature sensing.

● **CONFERENCES & SEMINARS**

Workshop on Cryptography Applied to Security and Privacy in Data Science Conference on Challenges of Cryptography in Data Privacy and Security

- Focused on the security and privacy implications of massive data publication and processing.
- **Key topics covered:**
 - Secure delegation of data and cloud computing.
 - Advances in modern and post-quantum cryptography.
 - Security and privacy in Machine Learning (ML).
 - Encryption techniques.

● **SKILLS**

Ubuntu | Inteligencia Artificial | python | Python (computer programming) | Linux | Microsoft Office, LibreOffice, LaTeX | Git | Matlab | Neural networks | machine learning

● **LANGUAGE SKILLS**

Mother tongue(s): **SPANISH**

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	B2	C1	B2

● **DRIVING LICENCE**

Driving licence: B | 2021