

Alberto Reyes Castro

Physics Graduate & MSc Artificial Intelligence Candidate



About me

Physics graduate and MSc Artificial Intelligence candidate with experience in Python automation, scientific communication, LaTeX, LabVIEW, FullProf, and crystallographic analysis. Interested in applying AI, data-driven methods, and open-source tools to scientific and interdisciplinary problems.

Specializations

• Physics • Python Programming • Machine Learning • Scientific Computing • Scientific Communication • Open Science • Multilingual Environments • FullProf • LabVIEW • LaTeX

Skills

Python Automation / GPU-Accelerated Whisper Transcription / Subtitle Generation / Regex / Fuzzy Matching / Scientific Writing / Open Science / Teamwork / Problem Solving

Languages

Spanish – Native
English – Advanced (C1, certified)
Japanese – JLPT N3 (80/180)
French – Limited working proficiency

SUMMARY

Physics graduate with strong foundations in mathematics, programming, scientific communication, and core areas of physics. Currently pursuing a two-year, full-time MSc in Artificial Intelligence Technology with Advanced Practice at Northumbria University, London Campus, with a focus on machine learning, Internet of Things (IoT), advanced AI methods, and applied project-based work.

Completed a Final Degree Project in English on the structural mechanisms of ferroelectricity and ferroelasticity in β' -RE₂(MoO₄)₃ compounds, achieving a high distinction. The project involved crystallographic analysis using neutron and X-ray diffraction data.

Received the Academic Merit Convocation award from Universidad de La Laguna, an annual distinction granted to students with outstanding academic performance and ranking among the top of their graduating class.

EXPERIENCE

Mar 2025–May 2025

Student Internship – Department of Communication and Scientific Culture (UC3)

INSTITUTO DE ASTROFÍSICA DE CANARIAS (IAC) · La Laguna

Contributed to bilingual science communication and outreach at the IAC. Developed a Python-based, AI-assisted transcription workflow using GPU-accelerated Whisper to generate segmented multilingual subtitles. Built a semi-automated text-matching pipeline using regex and fuzzy matching to link outreach articles with scientific publications. Supported public outreach events, audiovisual production, citizen surveys, interviews with Nobel Laureates in Physics, image analysis with PeterSoft, and technical reporting in LaTeX.

Jan 2012–Jan 2016

Basketball Player

REAL CLUB NÁUTICO DE TENERIFE (RCNT) · Santa Cruz de Tenerife

Competed in official regional leagues and national tournaments. Developed teamwork, leadership, discipline, time management, and the ability to perform under pressure through rigorous training and competitive play.

EDUCATION

Jan 2026–Jan 2028

MSc Artificial Intelligence Technology with Advanced Practice

NORTHUMBRIA UNIVERSITY, LONDON CAMPUS · London, UK

Sep 2018–Jul 2025

BSc in Physics

UNIVERSIDAD DE LA LAGUNA · Tenerife, Spain

Sep 2016–Jun 2018

Secondary Education (Science Track)

COLEGIO PUREZA DE MARÍA · Santa Cruz de Tenerife, Spain

Sep 2022–Oct 2022

Intensive Japanese Course (4 weeks)

EDUCATION FIRST LANGUAGE ABROAD · Tokyo, Japan

Jul 2017

Intensive English Course (4 weeks)

EDUCATION FIRST LANGUAGE ABROAD · Brighton, UK

CERTIFICATES AND ADDITIONAL TRAINING

- 2025** AI & Big Data in Biomedical and Healthcare Applications (300h) – DYM Canarias
- 2025** IELTS Academic UKVI (7.0/9.0, C1) – British Council
- 2025** NASA Open Science 101 – NASA
- 2024** Introduction to Data Science – Santander
- 2024** Artificial Intelligence and Productivity – Santander
- 2023** IDEAUP Open Innovation Training – Wroctaw University of Science and Technology
- 2022** Cambridge Advanced (C1) – University of Cambridge
- 2022** Basic CPR and First Aid – Cabildo de Tenerife
- 2019** COEFIS Physics Student Congress – Universidad de La Laguna
- 2017** Scientific Week Certificate – CSIC

ACADEMIC PROJECTS AND OUTREACH CONTRIBUTIONS

- 2025** *Final Degree Project: Structural Mechanisms of Ferroelectricity and Ferroelasticity in Compounds with the Formula:*
 β' -RE₂(MoO₄)₃
- 2025** *El eclipse parcial que recordó a Canarias el valor de mirar al cielo, **Astronomía Magazine***
- 2025** *The WEAVE spectrograph captures the interaction of supernova SN 2023ixf with its surroundings one year after its explosion*
IAC News
- 2025** *Partial Solar Eclipse of March 2025, **IAC News***

CONTACT DETAILS

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