

Alexander Sarango

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Education

Bachelor's Degree in Physics

Riobamba, Ecuador

Escuela Superior Politécnica de Chimborazo, Faculty of Sciences

2020 - Present

Research Experience

IDIPI 306 Project

Riobamba, Ecuador

Research Assistant

Apr 02, 2024 - Present

Supervisor: Biof. Isabel Balvoa

Project: "Forecasting weather behavior patterns through machine learning techniques in the province of Chimborazo" by the Alternative Energy and Environment Group at Escuela Superior Politécnica de Chimborazo

- Developed a extensive framework of data analysis and unsupervised machine learning algorithms.
- Simulated algorithms by implementing k-means method for partitioning a dataset into a number of clusters.

Outreach and Activities

IV Congreso Internacional De Física 2023

Oct 18 - 20, 2023

Attended in a hybrid conference organized by the Physics Department of Escuela Superior Politécnica de Chimborazo and brought experts working in the fields of high energy physics, optics, astrophysics, etc.

Introducción a LaTeX

May 16 - Jun 2, 2023

I organized this introductory course along with Club de Física Emmy Noether for providing students the basic notions of programming in LaTeX at Escuela Superior Politécnica de Chimborazo.

Hands-On Astronomy

Apr - Jun, 2023

Participated in a project organized by the Organization of the Ecuadorian Olympiad on Astronomy and Astronautics. I helped training young students around the country with the basics of Quantum Physics before the evaluation process.

Seminar: "A code to generate the image of a black hole"

Mar 23 - 25, 2023

Attended in a virtual seminar organized by Eduard Larrañaga from the research group on Computational Astrophysics at the National Astronomical Observatory

La Semana de la Astrofísica

Aug 23 -27, 2021

Attended in virtual talks organized by AEFN-YT and CFTA. Experts in Astrophysics areas provided talks about Cosmology, Wormholes, Exoplanets, Astroparticles and Black Holes.

Responsibilities

Member

Aug 2023 - Present

Member of Physics Students Association within ESPOCH

Head

Dec 2022 - Present

Head of External Relationships Department of CFEN at ESPOCH

Coordinator

Apr 2023 - Nov 2023

Project Coordinator of "Online mini course: Introduction to General Relativity" organized by PWF-ICTP, CFEN and ESPOCH

Member

Feb 2022 - Apr 2023

Member of Academic Team of Hands-On Astronomy from OEAA

Member

Jul 2022 - Dec 2022

Member of External Relationships Department of CFEN at ESPOCH

Member

Feb 2022 - Jul 2022

Member of Academic Department of CFEN at ESPOCH

Skills

Programming skills: Python, Mathematica, LaTeX, HTML5, CSS3, JavaScript, Git/GitHub.

Languages: Spanish (native), English (fluent), Chinese (beginner).