Alexander **Sarango**

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Education

Bachelor of Science in Physics, Escuela Superior Politécnica de Chimborazo   Oct 2020 - Feb 2025
Bachelor thesis: *Gravastar model with vanishing complexity.*
Supervisor: MSc. Julio Andrade.

Professional Experience

Grupo de Energías Alternativas y Ambiente, ESPOCH, Ecuador   Oct 2024 - Jan 2025
Research Assistant
- Implemented a dynamic clustering algorithm for predicting climate behavior patterns.
- Developed an extensive framework of data analysis and unsupervised machine learning algorithms.

Grupo de Energías Alternativas y Ambiente, ESPOCH, Ecuador   Oct 2024 - Dec 2024
Intern
- Developed workshops on climatology y meteorology to high school students.
- Visited ESPOCH's weather stations to extract and analyze data obtained from the devices.

Conferences & Additional Training

II Simposio de Física Teórica y Computacional	*Urcuquí, Ecuador 2025*
V Congreso Internacional De Física 2024	*Riobamba, Ecuador 2024*
IV Congreso Internacional De Física 2023	*Riobamba, Ecuador 2023*

Volunteer Experience

GitHub for Team Collaboration   *Riobamba, Ecuador 2025*
Organized this short mini-workshop along with Club de Física Emmy Noether at Escuela Superior Politécnica de Chimborazo for introducing students the basic tools of Git for team collaboration projects within GitHub.

Introduction to LaTeX   *Riobamba, Ecuador 2023*
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   *Remote 2023*
Contributed to the Ecuadorian Olympiad on Astronomy and Astrophysics as professor of Quantum Physics to train young students around the country before the evaluation process.

Outreach

Gravastars, the missing piece of the cosmic puzzle?   *Nov 2024*
Delivered a presentation at the Café Científico organized by CFEN, explaining the theory about gravastars.

Leadership Activities

Student **representative** at ESPOCH   2023 - 2025
- Represented students as a member of Physics Students Association facilitating communication between them and Faculty.

Head of Programming Committee of CFEN   2023 - 2025
- Headed a student group with the aim of performing activities about programming.

Head of External Relationships Committee of CFEN   2022 - 2024
- Headed a student group with the aim of creating links with national and international organizations.

Project **coordinator** of "Online mini course: Introduction to General Relativity"   2023
- Co-organized a collaborative project organized by PWF-ICTP, CFEN y ESPOCH.

Skills

Programming skills: Python, Mathematica, JavaScript, Git/GitHub, LaTeX, HTML5, CSS3
Languages: Spanish (native), English (fluent), Chinese (beginner).