Cristo Daniel Alvarado

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OBJECTIVE

Seeking a challenging position in Pure Mathematics or in Data Analysis to leverage my expertise in programming and statistics. Aiming to contribute to innovative projects at the intersection of Maths, Computing and practical problem-solving.

EDUCATION

• Escuela Superior de Física y Matemáticas at Instituto Politécnico Nacional

August 2020 - January 2025

Bachelor's degree in Physics and Mathematics with a specialization in Mathematics (no degree conferred yet). \circ GPA: 9.27/10.00 Mexico City, Mexico

• Centro de Estudios Científicos y Tecnológicos No. 9 at Instituto Politécnico Nacional

August 2020 Mexico City, Mexico

Technological baccalaureate with specialization in programming • GPA: 9.03/10.00

PROJECTS

• Cyclon: Web and App Applications developed to track hurricanes.

February 2020 - June 2020

Tools: Python, Node JS, Java

- Developed in Node JS (Web Application) and Java (Android App).
- Applied linear regression and clustering analysis to predict hurricanes velocity and position.
- 2° place at the twenty-ninth contest: "Premio mejores prototipos nivel medio superior" 2020.

VOLUNTEER EXPERIENCE

• Volunteer Teacher At Escuela Superior de Física y Matemáticas

September 2024 - December 2024

Instituto Politécnico Nacional

- Teacher in the workshop on: Algebraic Topology Introduction.
- It allowed me to teach school students for a better and deeper understanding of the subject.
- Skills developed: mathematical communication, pedagogical skills, research skills, time management and confidence in public speaking

HONORS AND AWARDS

• Award October 2024

Awarding the best averages of the semester

 Recognition for achieving a GPA of 9.18 in the academic program of the Bachelor's Degree in Physics and Mathematics during the August 2023 to January 2024 school term.

• Award October 2023

Awarding the best averages of the semester

- Recognition for achieving a GPA of 9.11 in the academic program of the Bachelor's Degree in Physics and Mathematics during the February 2023 to July 2024 school term.
- 2° place at twenty-ninth contest: "Premio mejores prototipos nivel medio superior" 2020 Instituto Politécnico Nacional

August 2020

 Award for the development of Cyclon, a web and mobile application in charge of monitoring and predicting the movement of hurricanes at Mexican coast line.

EXTRACURRICULAR ACTIVITIES

• CIMAT's School Algebra and Singularities

11 - 14 November 2024

• Participation as a student in the School of Algebra and Singularities at CIMAT Guanajuato, in a face-to-face format, held from November 11 to 14, 2024.

57th Congress of Mexican Mathematical Society

21 - 25 October 2024

• Attendance at the 57th National Congress of the Mexican Mathematical Society, held from October 21 to 25, 2024, at the Faculty of Exact Sciences of the Universidad Juárez del Estado de Durango.

CIMAT's Summer School of 2024

08 -12 July 2024

 Participation as a student in the CIMAT Summer School 2024, Guanajuato Campus, in a face-to-face format, held from July 8 to 12, 2024.

CIMAT's Summer School of 2023

10 -14 July 2023

• Participation as a student in the CIMAT Summer School 2023, Mérida Campus, in a face-to-face format, held from July 10 to 14, 2023.

SKILLS

- **Programming Languages:** Java, Javascript, C, C++ and Python
- Database Systems: SQL and MySQL
- Data Science & Machine Learning: Pandas Python library
- Specialized Area: Abstract Algebra, Topology, Mathematical Analysis and Topological Algebra
- Mathematical Tools: Tex Typesetting
- Other Tools & Technologies: Visual Studio Code and Linux

ADDITIONAL INFORMATION

Languages: Spanish (Native) and English (Professional). **Interests:** Pure Mathematics, Applied Mathematics, Data Analysis and Machine Learning, Bookbinding.