Andres Benjamin Antelis

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About me

Fourth Year Undergraduate Student

Experiencing new worldwide experiences by applying the new possibilities that machine learning brings

EDUCATION

Instituto Tecnológico de Estudios Superiores de Monterrey

B.S. in Computer Science

EXPERIENCE

On-Campus Intern | *Tecnologico De Monterrey*

- Assisted the career director with several different tasks at hand in order to create events, maintain order in the career program, and help students with problems regarding their academic and professional life
- Developed and presented an interactive workshop about Brain Computer Interface dedicated to high school students
- Designed and presented programming workshops directed to students of high school level and below in order to promote the institution and the career to students

Projects

School Management Database System | Puthon

- Currently working alongside Tejiendo Redes, a non-profit organization whose mission is to provide over 300 students in need with proper educational necessities.
- Retrieving information of elementary and middle school students across 3 schools, then processing the information to determine which students need extra help to avoid falling behind.
- Developing data processing software in Python, with the intention of deploying it on a webpage for the schools to use, and expanding it to more schools in the area in the future.

Campus Dormitory Building Network Simulation | *Physical Server*

- Analyzed the structure of the campus dormitory building, and calculated the number of users to improve the current networking.
- Developed a simulation on Cisco Packet Tracer to test the implemented network subnetting and VLANs to guarantee proper reliability and safety.
- Tested the implementation on a physical server lab room to set up and configure all necessary interfaces, VLANs, and routers.
- Presented our solution to a private network business to get feedback on our implementation and determine how far our solution is from the real implementation.

CNN Regression for Astrophysical Parameter Estimation | Machine Learning

- Used neural networks for the detection and interpretation of signals received from gravitational wave data from LIGO observatory.
- Applied concepts from machine learning to understand computer vision techniques.
- Explored the application of transfer learning techniques to leverage pre-trained CNN models, improving signal detection accuracy.
- Presented a paper and defended a poster at the 'International Conference on Machine Learning'.

Volunteering

English and Programming Professor | Casa hogar Naandi

• Taught English language lessons to primary school students from different backgrounds, developing their communication skills and foreign language, developing communication and leadership skills.

PUBLICATIONS

Antelis, A., Claudia, M. (2023). Convolutional neural network regression (CNNR) for estimating physical parameters of astrophysical binary black hole (BBH) systems. Latinx at International Conference of Machine Learning, 1(2)

Guadalajara, México Aug. 2022 - Jun. 2026

Aug. 2024 - Ongoing

May. 2024

Ongoing

Jul. 2023

Feb. 2023 – Dec. 2023