ADALID CHAVEZ

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Final semester student of Bionic Engineering, specializing in Artificial Intelligence. I have programming skills in Python with focuses on deep learning projects and data analysis. With a proactive and results-oriented approach, along with the ability to work in interdisciplinary environments, I have been able to make significant contributions in every role I have undertaken.

EDUCATION

Instituto Politécnico Nacional | **IPN-UPIITA**   **Mexico City**

Bachelor's Degree in Bionic Engineering | GPA 3.42   *August 2019 - July 2024*

- **Relevant Coursework:** Artificial Intelligence, Machine Learning, Deep Learning, Digital Image Processing, Metaheuristics, Biostatistics, Pattern Recognition, Mathematical Modelling, Digital and Analog Processing of Biological Signals.

EXPERIENCE

Thesis work: 'Development of a Deep Neural Convolutional Architecture for Classifying Diabetic Retinopathy Fundus Images'

Author, Bachelor's Degree   *(Ongoing) 2024*

- Implemented the PyTorch Lightning framework to streamline model development and training.
- Used PyTorch for the construction of the convolutional neural network architecture.
- Executed image preprocessing to enhance data quality and optimize model performance.
- Researched and applied specific image processing techniques for accurate detection and classification of diabetic retinopathy.
- Conducted detailed analysis of the obtained results.

CINVESTAV | Toxicology Department   **Mexico City, Zacatenco**

Internship   *June - December 2022*

- Contributed to and executed experiments as part of several teams in doctoral research projects.
- Collected references and conducted research for doctoral projects.

LEADERSHIP EXPERIENCE & ACTIVITIES

Volunteer at IEEE EMB Student Chapter   **2022-2023**

- Led a team in the IEEEXtreme 16.0 Programming Competition, achieving a global rank of 1870 out of 3000 and securing the 27th position among competitors in Mexico.
- Directed a team in the IEEEXtreme 17.0 Programming Competition, attaining a global rank of 1780 out of 4000 and holding the 30th position among competitors in Mexico.

Summer of Research Program at CINVESTAV   **Mexico City**

Volunteer   *summer 2022*

- Contributed to a team conducting the project on the 'Effects of Silicon Dioxide (SiO_2) Nanoparticles on the Viability of Blood-Brain Barrier Components'.
- Presented as a speaker at the International Congress of the XXVII Pacific Scientific and Technological Research Summer, August 2022.

SKILLS & INTERESTS

Computer: Python (4 years) | Pytorch | Pytorch Lightning | numpy | scikit learn | Pandas | R (1 year) | C++ (1 year) | Matlab (3 years) | Excel.
Languages: English (B2, Duolingo English Test), German (A2), Spanish (Native).
Interests: Artificial Intelligence, Deep Learning, Machine Learning, Algorithmics, Data Science, Data Analysis.