

Ana (Alejandro) Muñoz Gutiérrez

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EDUCATION

Autonomous Technological Institute of Mexico | *Master in Data Science* CDMX, Mexico | **08.2021 – Present**

- Host of the podcast Algorithms + Data + Society
- Master thesis **internship** in **Germany**, BAYLAT **scholarship**

Iberoamerican University | *Bachelor's degree in Physics Engineering* CDMX, Mexico | **08.2016 – 05.2021**

- Academic exchange at the National Institute of Applied Sciences, **Bioinformatics** department, Lyon **France** | Autumn 2019
- Summer school and **research seminar** at the National Institute of Astrophysics Optics and Electronics, Puebla Mexico | Summer 2018
- **Vice-president** and Academic Counselor, representing students | 2017-2018
- Popularization of science in the radio station **Ibero 90.9FM** | 2020-2022
- **Lecturer** Vasconcelos Library, Popularization of science | June 2019 and August 2021

UCSanDiegoX | *Data Science MicroMaster* Remote | **11.2020 – 03.2021**

- Modules of: Python for data science, Statistics and Machine Learning.

SKILLS

Programming Languages and Libraries

Python (advanced), R (intermediate), SQL (basic), TensorFlow, Pytorch, Scikit-Learn, Keras, Numpy, Pandas, Matplotlib.

Software Tools

Microsoft Office, Docker, Github, Google Cloud, Google Sheets.

Communication & Interpersonal

Effective communicator, Ability to teach & mentor, Decision-maker & problem-solver. English (C1), French (B2), German (A1).

EXPERIENCE

Greenspin, Agricultural Tech Startup | *Data Scientist Intern* Würzburg, Germany | **10.2022- 03.2023**

- Collaborated with a 3-person development team to implement a neural network capable of detecting wheat crops from satellite images and agricultural statistics. This was a collaboration between industry (Greenspin) and the research center of artificial intelligence CAIRO.
- Implemented from scratch models and data preprocessing. Applied transfer learning to areas with low quality data.
- Outperformed the state-of-the-art metrics and opened new research opportunities. My code is used as base for new projects. Reduced data preprocessing time by 60%.

Private tutoring in mathematics, programming and physics | Independent CDMX, Mexico | **06.2020 – Present**

PROJECTS

Hotel Cancellations Predictor

Language: R
Dataset/Packages: Kaggle, Hotel booking demand data sets. Tidyverse, Dplyr.
Source Code: https://github.com/Monfiz/Alex_Portfolio/tree/main/Project_2

Brain Tumor Detection

Language: Python
Dataset/Packages: Cheng, Jun (2017): brain tumor dataset. Tensorflow, Numpy.
Source Code: <https://github.com/mig-calval/brain-tumor-detection>

Wheat Remote detection

Language: Python
Dataset/Packages: MODIS satellite data, NASS agricultural statistics, CDL. Pytorch, Gdal, Numpy.
Source Code: https://github.com/Monfiz/Crop_remote_sensing/tree/main/Final_code_march_2023