María Victoria CASTRO RIGLOS

PhD in Physics, Researcher, Data Analyst, Data Scientist & Developer

current location: Hamburg, Germany

EDUCATION

- Master in Renewable Energy – Universitat de Barcelona – 2019
- PhD in Physics – Universidad Nacional de Cuyo (Instituto Balseiro) – 2011
- Master in Physics – Universidad Nacional de Cuyo (Instituto Balseiro) – 2005
- BSc in Physics – Universidad Nacional de Cuyo (Instituto Balseiro) – 2004

SKILLS

- Languages: Python, SQL, Javascript
- Web Development Libraries, Frameworks and Tools: Git & GitHub, Django, Flask, HTML, CSS, Bootstrap, Jupyter Lab, Google Colab, Replit.
- Visualization Tools: Dash, Streamlit, Plotly Express, Matplotlib, Seaborn, Tableau
- Data Analysis and Machine Learning Libraries and Frameworks: pandas, numpy, Scikit Learn, Pytorch, Keras, Tensor Flow. Experience with classification, regression and GANs models.

PROJECTS

1) **EDA**: *"Would we survive our development?"*

Interactive dashboard performed using python: Dash-Plotly, pandas, numpy and matplotlib libraries. The data was obtained from World Bank. The project repository is available on my GitHub. The dashboard is deployed in render.com, https://development-vs-co2.onrender.com

2) **Interactive BI Dashboard**: *"Which Autonomous Community in Spain is more adequate for remote workers in terms of housing opportunities?"*

Data obtained from Kaggle and Photovoltaic Information System.
https://public.tableau.com/app/profile/victoria.castro5625/viz/Rents_in_Spain/Dashboard1?publish=yes

3) **Machine Learning**: *"Yearly income in the US in 1994"*

In this work it was predicted whether the citizens income in USA in1994 exceeded fifty thousand dollars a year, so it is a binary classification task. The census dataset contained 142521 rows and 12 columns. Libraries used: pandas, numpy, plotly.express, scikit learn. Tasks performed: cleaning, identifying numerical and categorical features, imputing missing values and scaling numerical features, encoding categorical features, splitting the data (train and validation sets), fit and train 3 models, tuning hyperparameters. Accuracy Obtained: around 95%.
https://jovian.ai/viquiriglos/us-census-1994

4) **Simple Dynamic Web Page**: "Astroworld"

Developed in Replit and deployed on Render hosting. Code hosted on my GitHub.
Tools used: Git, HTML, CSS, Bootstrap, python, Flask. https://astroworld.onrender.com

WORKING EXPERIENCE (not in Data Science)

- Researcher at Argentinean National Council of Science and Technology, Conicet (2013 – 2021).
- Specialist in Transmission Electron Microscopy (TEM) and other characterization techniques for Material Science Research.
- Experience in teaching, publishing and managing research projects.
- Fluent in English (C1 certified), Spanish (native) and Portuguese. Basic knowledge in German and French (A1 certification in both).