María Victoria CASTRO RIGLOS

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

[e-mail](mailto:viquiriglos@gmail.com) | [LinkedIn](https://www.linkedin.com/in/victoria-castro-a8b31556/) | [Jovian](https://jovian.ai/viquiriglos)

current location: Hamburg, Germany

**EDUCATION**

* Master in Renewable Energy – Universitat de Barcelona - Spain– 2019
* PhD in Physics – Universidad Nacional de Cuyo (Instituto Balseiro) - Argentina – 2011
* Master in Physics – Universidad Nacional de Cuyo (Instituto Balseiro) - Argentina – 2005
* BSc in Physics – Universidad Nacional de Cuyo (Instituto Balseiro) - Argentina – 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?"*](https://development-vs-co2.onrender.com)

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 [GitHub](https://github.com/viquiriglos/Development_vs_CO2). The dashboard is deployed in render.com.

1. **Interactive BI Dashboard**: [*"Which Autonomous Community in Spain is more adequate for remote workers in terms of housing opportunities?"*](https://public.tableau.com/app/profile/victoria.castro5625/viz/Rents_in_Spain/Dashboard1?publish=yes)

Data obtained from [Kaggle](https://www.kaggle.com/datasets/laurabarreda/rental-listins-in-idealista-spain) and [Photovoltaic Information System](https://re.jrc.ec.europa.eu/pvg_tools/en/#PVP).

1. **Machine Learning**: [*"Yearly income in the US in 1994"*](https://jovian.ai/viquiriglos/us-census-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](https://jovian.ai/outlink?url=https%3A%2F%2Fsci2s.ugr.es%2Fkeel%2Fcategory.php%3Fcat%3Dclas%26order%3Dname%23sub2) 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%.

1. **Simple Dynamic Web Page**: “[Astroworld](https://astroworld.onrender.com)”

Developed in Replit and deployed on Render hosting. Code hosted on [GitHub](https://github.com/viquiriglos/Astro-page).

Tools used: Git, HTML, CSS, Bootstrap, python, Flask.

**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).