Data Scientist
Ignacio Ordovás Pascual

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I transform complex and large databases into precise, understable and useful pieces of knowledge. Always learning new tools to extract valuable information from datasets and improving my code skills. My research expertise in the astrophysics field helps me to apply skills such as results reporting, time management, and solving problems creatively.

MAIN SKILLS

- Analysis and visualization of data
- Communication of complex ideas
- Problem resolution and critical thinking
- Research Background
- Teamwork, engage with colleagues

- Advanced Python Programming
- Experience in Machine Learning
- Database handling (MySQL, MongoDB)
- Web Scraping
- APIs

Work Experience

Instituto de Física de Cantabria (CSIC-UC), Santander - *Predoctoral Researcher*
January 2014 - December 2019

- **Analyzed data** from 258 Active Galactic Nuclei (AGN) using proprietary observations and public spectral datasets.
- **Created Python code** and adapted others to automatically detect emission lines or to measure best fitting models for big spectral datasets.
- **Planned numerical simulations** to measure the nuclear obscuration of the AGN and its emission properties.
- **Prepared and presented 10 talks and posters** showing research results in conferences.
- **Coordinated outreach activities** that include public astronomical observations, outdoor outreach activities, talks at schools and public visits to the IFCA installations.
- **Teacher of astronomy practices** for studies of the Physics Degree in the Universidad de Cantabria (35 hours in total taught in Spanish and English).

Education

IronHack, Madrid - *Data Analytics bootcamp*
October 2020 - December 2020

Bootcamp about data wrangling, visualization, statistics and analysis techniques applied to real world problems.
- **Advanced Python** (functional programming, filter, map, reduce, OOP), relational and non relational **databases** (MySQL, MongoDB), **Bash**.
- **Experience** with Tableau, NLP, APIs (Flask), Web Scraping, Natural Language Processing.
- Supervised and unsupervised **machine learning** using Scikit-learn (feature extraction, engineering, model evaluation, pipeline design). **Neural network** experience using Tensorflow and Keras.
- Essential **Technical & Data Analysis Skills**: Bash, Git, GitHub, Jupyter Notebook, Spyder.
- **Inference statistics** (Hypothesis testing, Bayesian statistics, PCA,..).

Universidad de Cantabria, Santander - *PhD in Science and Technology (Merit distinction "Cum Laude")*
January 2014 - December 2019

Universidad de La Laguna, Tenerife - *Master's Degree in Astrophysics | Bachelor's Degree in Physics*
September 2012 - July 2013 | September 2005 - September 2012

Languages

- **Spanish** (native).
- **English** (B2, University of Cambridge).

Courses

- **Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning,** Coursera MOOC.
- **AWS Cloud Practitioner Essentials** and **AWS Cloud Technical Essentials**, Coursera MOOC.
- **Specialization: Machine learning**, Coursera MOOC.
- **Narrate the Science: Scenic and oral narration techniques for scientific communication:** UC summer course.

Highlights

Publication of scientific results: *4 peer-reviewed papers presenting results (in English)*

- Published one first author paper, and another one as the fourth author with AGN **data analysis** results.
- Published one first author paper, and another one as the fourth author with unsupervised **machine learning** applications in astronomy.

Communication of scientific findings: *seminaries, national and international congresses*

- **Presented** results in different seminars and congresses inside and outside of Spain in English (7 oral presentations and 3 scientific posters) .
- **Member** of the Local Organization Committee of the "Spanish X-ray Astronomy" that took place in June 2015 in Santander.

HackShow participant: *Presentation of the final project of the Data Analytics bootcamp*

- Selected to participate in the HackShow (22/01/2021) organized by IronHack presenting a **deep learning application** to recognize dice roll scores in image or video using Convolutional Neural Networks.