Ignacio Ordovás Pascual

Data Scientist

LinkedIn: www.linkedin.com/in/ordovaspascual/
Phone: +34 607 59 36 55
Email: ordovaspascual@gmail.com

With a strong scientific background in academic research and extensive experience as a Data Scientist, I thrive in the dynamic environment of data science. Having contributed to cross-functional projects and internal initiatives focused on data science pipelines, I excel in teamwork, meeting deadlines, and effectively communicating complex ideas to non-technical audiences. As a curious and fast learner, I continuously embrace the latest techniques, ensuring adaptability and delivering tangible results.

PROFESIONAL EXPERIENCE

COGNIZANT TECHNOLOGY SOLUTIONS: *Associate Data Scientist* (May 2021 - Present)
Participated in projects spanning various industries such as Ocean economy, Healthcare or Oil & Gas companies.

NLP and Generative AI projects:
- Coded a **generative AI chatbot** to allow users to obtain **automatic descriptive analytics and generate plots** to aid in logistics planning. The chatbot is connected to a Neo4j graph database containing supply chain logistics data.
- Developed an **RAG-based chatbot** for internal data used in production at a banking company. Improved its performance, resulting in a decision to **increase the user base from 50 to 600 employees.**
- Designed an NLP use case for record matching using NLP techniques (sentence similarity, fuzzy string matching).

Life Sciences client project:
- Updated an **AI model to assist clinical study designers** in planning procedure schedules.
- **Analyzed survey data using statistical techniques** such as Causal Inference/Propensity Score and Bootstrapping to assess the impact of 40 variables on patient burden.
- **Designed a CI/CD pipeline in GitHub** for containerized models and to connect input data from S3 buckets.
- **Ensured the stability and maintainability of deployed AI algorithms** in production through rigorous unit testing.

Other client and internal projects experience:
- **Created proof-of-concept (PoC) demos** for clients using Azure Web App, employing Docker/Streamlit or Flask.
- Implemented autoencoder-based techniques, clustering algorithms, and other approaches to achieve a 90% recall rate for **automatic defect detection**.
- Collaborated with Data Engineers to **develop API endpoints for productionizing solutions,**
- Implemented a **python pipeline with connections to SQL databases** to automatically calibrate portfolio data in insurance**.**
- **Developed a retail self-checkout solution using Azure Percept IoT device,** published in Microsoft IoT blog (click here).
- **Mentored graduates**, providing instruction on Data Science and Computer Vision concepts and applications.

TECHNICAL SKILLS

Advanced Python Programming	Statistical Analysis	Machine Learning	Gen AI (LangChain)
CI/CD Pipelines in GitHub	Natural Language Processing	Cloud (Azure AZ-900)	Computer Vision

SOFT SKILLS

Public speaking	Teamwork	Storytelling	Versatility
Written communication	Problem solving	Mentoring	Critical thinking

EDUCATION EXPERIENCE

PhD In Science and Technology (*Cum Laude* distinction)*:* University of Cantabria
Conducted extensive research on the relationship between optical and X-ray obscuration and its relation with the classification of Active Galactic Nuclei for my PhD by developing **Python code for model selection, curve fitting, feature detection and mathematical simulations**.

Master in Astrophysics & Bachelor Degree in Physics: University of La Laguna
Master's thesis on **unsupervised machine learning algorithm K-means** applications for galactic spectra.

LANGUAGES

English B2 (University of Cambridge), **Spanish** (Native)

OTHER HIGHLIGHTS

Invited talk about GenAI at FOSSCILT 24: Presentation about the performance of LLMs with mathematical operations (click here)
Published scientific findings in 4 peer-reviewed papers, delivered 7 oral presentations, and presented 3 scientific posters.
Ironhack Data Analytics: Private education company course to learn Data Science applied to corporate use cases.
Azure Percept training: Training organized by Microsoft to create Computer Vision solutions in this IoT device.
Certification: Azure Fundamentals (AZ-900).
MOOC courses (such as Udemy or Coursera): CI/CD, Optimization, CV, NLP, Keras/Tensorflow, Azure, Gen AI, Machine Learning.
Narrate the Science. Scenic and Oral Narration Techniques for Scientific Communication, UC summer course.

Ignacio Ordovás Pascual

Data Scientist

LinkedIn: www.linkedin.com/in/ordovaspascual/
Phone: +34 607 59 36 55
Email: ordovaspascual@gmail.com
Web: https://ordovas.github.io/

I have many years of scientific experience and I've recently started to work in a professional consulting environment where I'm involved in cross functional clients projects as well as several internal projects involving ML pipelines. My experience helps me apply skills like teamwork, meeting deadlines, and communicating results and complex ideas effectively to a non-technical audience. I am a curious and fast learner of the latest techniques in data science.

EXPERIENCE

COGNIZANT TECHNOLOGY SOLUTIONS: *Associate Data Scientist* (Apr 2021 - Present)
Participated in projects involving different topics as Life Sciences, Insurance, Food quality control and Oil & Gas companies. Some examples of my work are listed below:

Life Sciences client project:
- Updated AI model to help study designers to **create less burdensome clinical trials**.
- **Analyzed the effects of 40 variables** in patient burden using survey data, by applying statistical techniques like **Causal Inference/Propensity Score** and **Bootstrapping.**
- **Built a new DevOps solution** for a project, by designing a CI/CD in GitHub that connects input data from S3 buckets and automatically deploys the containerized updated model.
- **Ensured stability and maintainability of the AI algorithms** deployed in production using Unit tests.

Other client and internal projects experience:
- **Created 5 PoC demos for clients** in an Azure Web App using Docker/Streamlit or Flask.
- **Automatic detection of defects** in using autoencoders, clustering and other approaches, with **90% of recall.**
- Developed an **retail self-checkout object detection solution using Azure Percept**, whose instructions detailed in a Microsoft IoT blog post has reached **more than 5000 views**.
- Compiled a proposal of solutions using ML methods (e.g. Random Forest) and data analytics, **identifying the 10 most relevant actions** to optimize the outcome.
- Collaborated with Data Engineers to **create API endpoints** to productionize solutions.

INSTITUTE OF PHYSICS OF CANTABRIA (CSIC-UC): *Researcher* (Jan 2014 - Dec 2019)
Studied the relation between the optical extinction, X-ray absorption and classification of Active Galactic Nuclei.
- Analyzed galaxy spectral datasets to conduct a **PhD research project.**
- Created Python code for **automatic model selection and feature detection**.
- **Planned numerical simulations** to measure physical parameters and its confidence interval.

TECHNICAL SKILLS

Advanced Python Programming	Statistical Analysis	Machine Learning	Git
CI/CD Pipelines	Natural Language Processing	Cloud (Azure, AWS)	Computer Vision

SOFT SKILLS

Public speaking	Teamwork	Storytelling	Versatility
Written communication	Problem solving	Mentoring	Critical thinking

EDUCATION

PhD In Science and Technology (Merit with distinction *Cum Laude*): University of Cantabria
Master in Astrophysics & Bachelor Degree in Physics: University of La Laguna

LANGUAGES

English B2 (University of Cambridge), **Spanish** (Native)

OTHER HIGHLIGHTS

Ironhack Data Analytics Bootcamp: Private education company course to learn Data Science applied to real use cases.
Azure Percept Bootcamp: Microsoft training for this IoT device and blog publication of our solution (click here).
Certification: Azure Fundamentals (AZ-900).
MOOC courses in Udemy and Coursera: CI/CD, CV, NLP, Keras/Tensorflow, Azure, AWS, Machine Learning.

Ignacio Ordovás Pascual

Data Scientist

LinkedIn: www.linkedin.com/in/ordovaspascual/
Phone: +34 607 59 36 55
Email: ordovaspascual@gmail.com
Web: https://ordovas.github.io/

With a strong scientific background and extensive experience as a Data Scientist, I thrive in the dynamic environment of data science. Having contributed to cross-functional projects and internal initiatives focused on ML pipelines, I excel in teamwork, meeting deadlines, and effectively communicating complex ideas to non-technical audiences. As a curious and fast learner, I continuously embrace the latest data science techniques, ensuring adaptability and delivering tangible results.

EXPERIENCE

COGNIZANT TECHNOLOGY SOLUTIONS: *Associate Data Scientist* (Apr 2021 - Present)
Participated in projects spanning various industries such as Ocean economy, Healthcare or Oil & Gas companies.
Ocean project:
- Coded a **Generative AI** demo for obtaining automatic insights from supply chain datasets using chat prompts in python using **LangChain with OpenAI GPT-3/4 LLMs**.
- Designed a NLP use case for **record matching using NLP techniques** (sentence similarity, Fuzzy string matching).
- Worked on **optimization** use cases to obtain the most adequate actions to use in the supply chain.

Life Sciences client project:
- Updated an **AI model to assist clinical study designers** in creating less burdensome trials.
- **Analyzed survey data using statistical techniques** such as Causal Inference/Propensity Score and Bootstrapping to assess the impact of 40 variables on patient burden.
- **Designed a CI/CD pipeline in GitHub** for containerized models and to connect input data from S3 buckets.
- **Ensured the stability and maintainability of deployed AI algorithms** in production through rigorous unit testing.

Other client and internal projects experience:
- **Created proof-of-concept (PoC) demos** for clients using Azure Web App, employing Docker/Streamlit or Flask.
- Implemented autoencoder-based techniques, clustering algorithms, and other approaches to achieve a 90% recall rate for **automatic defect detection**.
- Collaborated with Data Engineers to **develop API endpoints for productionizing solutions,**
- Implemented a **python pipeline with connections to SQL databases** to automatically calibrate portfolio data in insurance**.**
- **Developed a retail self-checkout solution using Azure Percept IoT device,** published in Microsoft IoT blog (click here).
- **Mentored graduates**, providing instruction on Data Science and Computer Vision concepts and applications.

INSTITUTE OF PHYSICS OF CANTABRIA (CSIC-UC): *Predoctoral Researcher* (Jan 2014 - Dec 2019)
Conducted extensive research on the relationship between optical extinction, X-ray absorption, and classification of Active Galactic Nuclei for my PhD. Part of the time was developed with a contract with the university and part on my own.
- Developed Python code for **automatic model selection and feature detection**.
- Planned and executed **numerical simulations** to measure physical parameters and determine 1σ confidence intervals.
- **Published findings** in 4 peer-reviewed papers, delivered 7 oral presentations, and presented 3 scientific posters.

TECHNICAL SKILLS

Advanced Python Programming CI/CD Pipelines in GitHub	Statistical Analysis Natural Language Processing	Machine Learning Cloud (Azure AZ-900)	Gen AI (LangChain) Computer Vision

SOFT SKILLS

Public speaking Written communication	Teamwork Problem solving	Storytelling Mentoring	Versatility Critical thinking

EDUCATION

PhD In Science and Technology (*Cum Laude* distinction)*:* University of Cantabria
Master in Astrophysics & Bachelor Degree in Physics: University of La Laguna

LANGUAGES

English B2 (University of Cambridge), **Spanish** (Native)

OTHER HIGHLIGHTS

Ironhack Data Analytics Bootcamp: Private education company course to learn Data Science applied to real use cases.
Azure Percept IoT device training: Bootcamp organized by Microsoft.
Certification: Azure Fundamentals (AZ-900).
MOOC courses (such as Udemy or Coursera): CI/CD, Optimization, CV, NLP, Keras/Tensorflow, Azure, Gen AI, Machine Learning.
Narrate the Science. Scenic and Oral Narration Techniques for Scientific Communication, UC summer course.