Rodrigo Malagón

Mathematician | Data Scientist | Modelling Analyst

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Experience

Erasmus Mundus Master in Geospatial Technologies, Castelló de la Plana, Spain **Grant holder** | 09/2023 - 03/2025

- Developed workflow on the extraction, processing and Machine Learning <u>models</u> to forecast electricity consumption in the UN's military facilities in Sudan (SQL, R, Git) and flood classification <u>model</u> with Deep Learning (QGIS, R, Keras, TensorFlow, Sci-kit learn).
- Specialisations: Data Science, Machine Learning, Statistics (**Python**, **R**), Databases (**SQL**), Web Programming (**JavaScript**, **HTML**, **CSS**), visualisations (**Tableau**), and GIS (**ArcGIS**, **QGIS**, **PostGIS**).

Nielsen, Mexico City, Mexico (Remote)

Modelling Analyst | 10/2022 - 08/2023

- Implemented machine learning modelling (SAS, R, Python) to drive insights from media and sales time series for US and EU clients leading the CPG sector through attribution models (Unilever, Johnson&Johnson, Ferrero).
- Translated model results to benchmark marketing KPIs presented to the client (Power Query, Excel), to measure
 the impact of their marketing strategies.
- Collaborated with **international teams** (data processing, modelling, and customer success teams) across multiple projects.

Universidad de Sevilla, Seville, Spain

Undergraduate Researcher | 09/2021 - 12/2021

- Conducted undergraduate thesis research at the Department of Geometry and Topology.
- Presented results at a weekly seminar held at the university.

Universidad Nacional Autónoma de México, Mexico City, Mexico

Assistant professor | 08/2019 - 09/2021

- Taught Differential & Integral Calculus I-III at the BSc. Mathematics.
- Prepared and presented class material. Graded exams and assignments.

ITAM, Mexico City, Mexico

Undergraduate Researcher | 06/2019 - 09/2019

- Conducted research at the Mathematics Department on Geometric Measure Theory.
- Presented results at the 52nd National Congress of Mathematics.

Education

Universitat Jaume I, Spain; **Universität Münster**, Germany; **Universidad NOVA de Lisboa**, Portugal **MSc. Geospatial Technologies** | 09/2023 – 03/2025

- Grade: 9.24/10.00.
- Specialisations: Data Science, Machine Learning, Geostatistics, Databases, Web Programming, and Geospatial Analysis.
- Projects:

- Flood modelling with Convolutional Neural Networks (R, QGIS)
- Analysis of economic gender inequality in Latin America (Python)
- Deep Learning and Geostatistics model for energy consumption with IoT devices (SQL, R).
- Deep Learning prediction model for pollution sensors in Castelló de la Plana (R)
- o Madrid pollution guarter-level trend assessment in 2023 (R, ArcGIS)
- Bejeweled Web <u>Videogame</u> (Javascript)

University of Bristol, United Kindom

Visiting Student | 01/2020 - 07/2020

- Grade: First.
- Specializations: Partial Differential Equations, Logic, Number Theory.
- Membership of the Bristol Data Science Society.

Universidad Nacional Autónoma de México, Mexico

BSc. Mathematics | 08/2016 - 10/2022

- Grade: 10.00/10.00.
- Specialisations: Mathematical Analysis, Probability, Statistics, Programming, Vectorial Mechanics, Partial and Ordinary Differential Equations, Topology.
- Thesis: Morse Homology and its Applications.

Technical skills

- Programming languages: Python, R, SQL, JavaScript, HTML, CSS.
- Software and tools: Google Colab, Google Suite, Jupyter, Git, FME Form and Flow, Tableau, ESRI products & QGIS.
- **Skills:** ETL, data analysis, Machine Learning, Artificial Intelligence, Deep Learning, Statistics, Web Development, Geospatial Analysis, agile methodologies, data visualisation, and GIS.
- Languages:
 - Spanish (Native)
 - English (C1) IELTS Academic (2022), CAE (2016)
 - o Catalan (B2) Institut Ramon Llull (2023)
 - French (B2) DELF B2 (2023)
 - o German (B1) Goethe Zertifikat B1 (2023)

Certifications

- Datacamp:
 - Pre-processing for Machine Learning in Python (02/2025)
 - Intermediate Importing Data in Python (02/2025)
 - Introduction to PySpark (02/2025)
 - Introduction to Docker (02/2025)
 - Introduction to Git (02/2025)
 - Understanding Cloud Computing (02/2025)
- Conterra GmbH
 - FME Form and FME Flow (10/2023)
- ESRI
 - Classifying Objects Using Deep Learning in ArcGIS Pro (02/2024)
 - Visualizing Data Using ArcGIS API for Python (02/2024)
 - ArcGIS Survey123 Creating and Publishing Surveys (10/2023)
 - ArcGIS Pro Basics (10/2023)
 - O Using GIS to solve problems(10/2023)