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 models to forecast electricity
 consumption in the UN's military facilities in Sudan (SQL, R, Git) and flood classification model 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 on Geometric Measure Theory at the Mathematics Department.
- 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: 9.22/10.00.
- Specialisations: Data Science, Machine Learning, Geostatistics, Databases, Web Programming, and Geospatial Analysis.
- Projects:

- o 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.
- Specialisations: 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.

Skills & Languages

- 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)
 - o 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)
 - o ArcGIS Survey123: Creating and Publishing Surveys (10/2023)
 - ArcGIS Pro Basics (10/2023)
 - Using GIS to solve problems(10/2023)