

# Maria Oros Data Scientist

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## Services

My research mainly focuses on Bayesian statistics, machine learning, and dynamical systems. I have experience in both industry and research, developing innovative solutions that bridge theoretical advancements with practical applications. This work has enabled me to tackle complex real-world challenges, collaborate with multidisciplinary teams, and contribute to high-impact projects.

**Links** — [Data Science Institute Portfolio](#)  
[My Web Page](#)  
[LinkedIn](#)  
[GitHub](#)

## Education

UNIVERSITY OF NAVARRA  
DATA SCIENCE - 2022  
CENTER OF RESEARCH IN  
MATHEMATICS AND UNI-  
VERSITY OF GUANAJUATO  
MATHEMATICS AND  
PROBABILITY AND STATISTICS

## Skills

### PROGRAMMING

Python • R • C/C++ • SAS • SQL

### CLOUD SOLUTIONS

AWS • GCP

### VISUALIZATION

Tableau • Streamlit •  
AWSQuickSight • R shiny

### BACKEND N FRONTEND

FastAPI • PostgreSQL • HTML • CCS

## Disclosure of Science . UNAM - SPEAKER

SPEAKER: [\[RECORDED VIDEO\]](#)  
An introduction to Theoretical  
Physics at 9th Mathematical  
event at the Faculty of Science.  
**SCIENTIST SPECIALIST**  
Disclosure of science. Math  
scientist to elementary school  
students from 2012-2015.  
**TEACHER ASSISTANT**

At the University of Guanajuato  
and University of  
Madison-Wisconsin.

## Experience

### DATA SCIENTIST OVCR - RESEARCH ASSISTANT

DATA SCIENCE INSTITUTE AT UW-MADISON - AMERICAN FAMILY  
INSURANCE

📅 06/23-Present

📍 Madison WI, EU

#### Data Science Institute Portfolio

- I developed the Open source crop disease forecasting tool: API and APP deployed in posit connect a cloud server from UW-Madison.  
[PROJECT OVERVIEW](#) Python, R
- Lead and conducted causal inference [META ANALYSIS](#) on CBD trials in plant pathology (corn, soybean and alfalfa) to evaluate effectiveness of fungicide applications. I conducted a econ inference to evaluate fungicide profitability under an economic inference. Outcomes: paper submission and ROI app deployed in AWS. [ROI CALCULATOR](#) SAS, R
  - Developed a comprehensive SAS framework and automated R procedure for meta-analysis, successfully implemented on different settings. Planned to be extended for clinical trials.
  - Submitted a scientific publication to stats journals.
- Collaborated with Safe Set Business applying foundational models and time series techniques for anomaly detection of workforce schedules data. Deploying an LLM model in databricks.
- Phillies hackathon 2024 - finalist. Mentoring 2 undergraduates from UW-Madison and deployed a solution in AWS lambda for baseball characterization of hits dynamics as per sensor data.

### SENIOR DATA SCIENTIST-ANALYST

ADVANCED ANALYTICS (CREDIT RISK DIVISION) - BBVA MEXICO

- **Credit Card Risk Modeling:** Led the development and management of Mexico's National Credit Loan model at BBVA, the country's leading bank. Provided actionable insights to executive leadership in Mexico and Spain, supporting data-driven strategic decisions. Provide documentation and be in charge of answering audit processes needed in banking.
- **Attrition model for insurance sector:** conducted and deployed a ML model for attrition risk in the banking sector.
- **House pricing model:** conducted and deployed a ML model to predict housing prices in Mexico City. The model was deployed via API in AWS lambda. I created a CI/CD workflow to automate the pipeline for deployment.

### DATA SCIENTIST-ANALYST FROM 2019 TO 2022

BISONIC INC, APRENDE INSTITUTE

- **Analyst and software developed of game monitoring systems:** develop the game monitoring and models behind a MMORPG game. Deploy solutions using AWS lambda, EC2 and RDS to save gamer actions in database, automate workflow of metrics of interest for the game and deploy in-house models for specific business questions.

## Certifications

- a) TOEFL. b) [THE POWER OF STATISTICS](#) c) [CERTIFICATE IN MICROECONOMICS](#) d) [ATTENTION MECHANISM](#)
- CERTIFICATION OF PROFESSIONAL SKILL-SETS IN DATA SCIENCE  
UNIVERSITY OF NAVARRA SPAIN