

## PROFESSIONAL SUMMARY

**Data Scientist** with expertise in applied machine learning and LLM-based AI systems, from agentic solutions to production ML pipelines. Combines strong technical foundations with the ability to analyze enterprise processes, quantify value, and communicate solutions to technical and executive stakeholders.

## PROFESSIONAL EXPERIENCE

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| <b>Celonis S.L</b> , Madrid, Spain<br><i>Applied Value Engineer</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | March 2026 – Present      |
| <ul style="list-style-type: none"><li>Analyze end-to-end business processes of large enterprises to identify operational inefficiencies and quantify their financial impact, translating process data into measurable value and ROI.</li><li>Design and prototype AI-driven solutions on top of Celonis' process intelligence and context layer, leveraging AI agents and orchestrated automations to address inefficiencies in domains such as supply chain.</li><li>Present technical solutions and value cases to C-level stakeholders, translating complex AI and data concepts into clear business outcomes.</li></ul>                                                                                                                                              |                           |
| <b>Premier Analytics Consulting, LLC</b> , San Diego, California<br><i>Junior AI &amp; Data Science Consultant</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | May 2025 – Feb 2026       |
| <ul style="list-style-type: none"><li>Designed and implemented data pipelines and FastAPI backends to automate ingestion and transformation of large-scale research and environmental datasets across AWS S3 and on-prem servers.</li><li>Built and deployed containerized AI systems using Docker and Ubuntu, improving model reproducibility and deployment efficiency.</li><li>Developed a localized multilingual AI assistant for document summarization, translation, and knowledge retrieval using open-source LLMs (Mistral-7B, LLaMA 3), optimizing inference latency and cross-lingual accuracy.</li><li>Collaborated on end-to-end product delivery, integrating ML components with React frontends and RESTful APIs, and applying DevOps practices.</li></ul> |                           |
| <b>iHeatApp - SDSU Climate Informatics Lab</b> , San Diego, California<br><i>Junior AI &amp; Data Scientist</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | June 2024 – November 2025 |
| <ul style="list-style-type: none"><li>Developed a bilingual AI-driven platform to visualize real-time WBGT heat-risk maps and provide contextual safety insights through a custom LLM-based chatbot.</li><li>Built and validated forecasting pipelines using NOAA NBM data (Herbie/xarray), integrating geospatial modeling and environmental analytics for hourly predictions.</li><li>Integrated WBGT forecast data into a dynamic visualization pipeline, ensuring accurate geospatial rendering and hourly forecast updates for the Imperial Valley region.</li><li>First-authored a research paper on the system architecture and modeling framework, currently under review at the International Journal of Disaster Risk Reduction.</li></ul>                     |                           |
| <b>Center for Information Convergence and Strategy</b> , San Diego, California<br><i>Data Science Research Assistant</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | August 2023 – May 2024    |
| <ul style="list-style-type: none"><li>Applied multivariate statistical and time-series analyses to study nutrient dynamics and eutrophication in Irish agricultural catchments.</li><li>Developed automated R pipelines for data cleaning, interpolation, and quality-flagging, improving reproducibility of environmental modeling workflows.</li><li>Supported predictive modeling for nutrient concentration trends using regression and spatial-temporal clustering techniques.</li></ul>                                                                                                                                                                                                                                                                            |                           |

## TECHNICAL SKILLS

- Gen AI & LLMs:** LLM Integration (Hugging Face, OpenRouter, Ollama), RAG, LangChain, Qdrant, AI Agents.
- Machine Learning:** Scikit-learn, XGBoost, PyTorch, TensorFlow.
- Data Processing:** Pandas, NumPy, xarray, SciPy, Herbie, R (dplyr, tidyr).
- Visualization:** Matplotlib, Plotly, Deck.gl, Tableau.
- Statistical Modeling:** ANOVA, PCA, Time Series (SARIMA), Hypothesis Testing.
- DevOps:** Docker, Git/GitHub, AWS (S3, EC2).

## EDUCATION

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| <b>San Diego State University</b> , San Diego, California<br>Master of Science in Big Data Analytics                                                  | August 2023 - May 2025<br>GPA: 3.9       |
| <b>Miami University</b> , College of Engineering and Computing, Oxford Ohio<br>Foreign Exchange Program                                               | August 2022 - May 2023<br>GPA: 3.84      |
| <b>University of Málaga</b> , Industrial Engineering School, Málaga, Spain<br>Bachelor of Science in Electronics, Robotics & Mechatronics Engineering | September 2018 - May 2023<br>GPA: 7.8/10 |

## SELECTED PROJECTS

Developed and deployed **Weather with Cloudya**, a containerized real-time climate analytics platform integrating Python, FastAPI, and open-source LLMs to provide interactive weather forecasts and AI-driven interpretation. Applied machine learning techniques across multiple projects, including **Diamond Price Prediction** using tree-based and neural network models to optimize regression performance, and time-series forecasting of **Walmart Sales** with SARIMA models achieving robust predictive accuracy. All the projects and interactive demos available at [mabravo.com](#)

## AWARDS & RECOGNITION

WUSS 2024 Scholar | ISEP Merit Scholar | First-author paper in International Journal of Disaster Risk Reduction