SERGIO RODRIGUEZ VALBUENA

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PROFILE

Final-year Data Science and Engineering student with international academic experience and a strong background in Artificial Intelligence and Data Analytics. I am proactive and passionate about creating innovative solutions to solve real-world problems. I am particularly interested in how generative AI is shaping the future.

EDUCATION

Universidad Carlos III de Madrid — **Madrid, Spain**
Bachelor in Data Science and Engineering — Sep 2021 – Jul 2025 (Expected)
GPA: 7.71/10 (Excellence Scholarship of Madrid 2025)

University of California, Riverside — **California, United States**
Bachelor in Computer Science | Exchange Program — Aug 2023 – May 2024
GPA: 3.58/4

EXPERIENCE

MissioIA — **Madrid, Spain**
Generative AI Engineer (Internship) — Jan 2025 – Present
• Designed and implemented custom SaaS solutions powered by generative AI to automate workflows and optimize processes for clients.
• Built full-stack web applications with Python (Flask/FastAPI) and React (JavaScript/TypeScript) in serverless architectures (Firebase, Google Cloud, Azure).
• Integrated LLMs via APIs and intelligent agents to enhance user interaction and support decision-making.
• Key projects: Email response automation, chatbot for database querying, real-time voice assistant, multi-agent system for generating interactive content.

PRGX Global Inc. — **Madrid, Spain**
Data Analyst I (Internship) — Sep 2024 – Mar 2025
• Automated internal processes with Python and DBT, reducing manual effort and improving efficiency.
• Performed ETL tasks and financial data analysis using SQL and Microsoft SQL Server.
• Collaborated with international teams (Spain, Portugal, UK, Italy) to ensure data quality and integrity.
• Used Power BI for data validation and monitoring.

Hito 1 — **Asturias, Spain**
Machine Learning Intern — Jun – Aug 2024
• Developed a machine learning model for predicting spillway overflow events and their characterization.
• Performed feature engineering on hydrological time-series data, improving model interpretability and generalization.
• Compared model performance using Random Forest and XGBoost, achieving up to 86% accuracy on real data.

PROJECTS

Mobility and Routine Analysis for Mental Health Assessment — **Madrid, Spain**
*Course Project in Data Science · Collaboration with **eB2 (Evidence-Based Behaviour)*** — Sep 2024 – Jan 2025
• Analyzed large-scale geolocation data from mobile devices to uncover users' mobility patterns and daily routines.
• Applied clustering algorithms (DBSCAN), entropy analysis, and time-series analysis to extract behavioral insights.
• Created a custom mobility index and transportation classifier.
• Built an interactive dashboard and trained ML models to predict clinical study profiles based on movement patterns.

Deep Learning model for Waste Classification — **California, United States**
Course Project · University of California — Nov – Dec 2023
• Developed a waste recognition system using CNNs (EfficientNetB0) to classify discarded items and recommend appropriate recycling bins.
• Performed extensive data preprocessing (duplicate removal, augmentation, web scraping) to enhance dataset quality and model performance.
• Achieved 90.3% accuracy and evaluated multiple architectures (ResNet50, MobileNet, DenseNet) to select the best model.

LANGUAGES AND SKILLS

Languages: Spanish (native) · English (C1 Cambridge) · French, German, Italian (introductory coursework)
Programming & Query Languages: Python · JavaScript · TypeScript · R · Matlab · SQL · T-SQL
Frameworks & APIs: React · Flask · TensorFlow · PyTorch · Scikit-learn · XGBoost · OpenAI API · Anthropic API
Python Libraries: Pandas · NumPy · Matplotlib · Seaborn · Streamlit · Transformers (Hugging Face) · OpenCV
Databases: Oracle · MongoDB · Microsoft SQL Server.
Cloud & Tools: Git · Firebase · Google Cloud Platform · Microsoft Azure · DBT · Power BI