

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 Science. Proactive and passionate about creating innovative solutions through generative AI.

EDUCATION

Universidad Carlos III de Madrid <i>Bachelor in Data Science and Engineering</i> GPA: 7.71/10 (Excellence Scholarship of Madrid 2025)	Madrid, Spain Sep 2021 – Jul 2025 (Expected)
University of California, Riverside <i>Bachelor in Computer Science / Exchange Program</i> GPA: 3.58/4	California, United States Aug 2023 – May 2024

EXPERIENCE

MissioIA <i>Generative AI Engineer (Internship)</i> • Designed and implemented SaaS solutions powered by generative AI to automate workflows and optimize client processes. • Built full-stack web applications with Python (FastAPI/Flask) and React (Next.js) in serverless architectures (Firebase, GCP, 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.	Madrid, Spain Jan 2025 – Present
PRGX Global Inc. <i>Data Analyst I (Internship)</i> • 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.	Madrid, Spain Sep 2024 – Mar 2025
Hito 1 <i>Machine Learning Intern</i> • 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.	Asturias, Spain Jun – Aug 2024

PROJECTS

Samplex – AI-Powered Study Assistant <i>Course Project · Universidad Carlos III de Madrid</i> • Developed an Android app that generates personalized study plans from uploaded materials, achieving 92% user satisfaction. • Integrated LLMs APIs to create adaptive quizzes and summaries, reducing study time by 30% based on prototype testing. • Built the frontend with Flutter and Firebase backend, enabling real-time interaction and content generation.	Madrid, Spain Feb 2025
Mobility and Routine Analysis for Mental Health Assessment <i>Course Project in Data Science · Collaboration with eB2 (Evidence-Based Behaviour)</i> • 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.	Madrid, Spain Sep 2024 – Jan 2025
Deep Learning model for Waste Classification <i>Course Project · University of California</i> • Developed a waste recognition system using CNNs to classify discarded items and recommend appropriate recycling bins. • Performed extensive data preprocessing (augmentation, web scraping) to enhance dataset quality and model performance. • Achieved 90.3% accuracy evaluating multiple architectures (EfficientNetB0, ResNet50, MobileNet, DenseNet).	California, United States Nov – Dec 2023

LANGUAGES AND SKILLS

Languages: Spanish (native) · English (C1 Cambridge) · French, German, Italian (introductory coursework)
Technical Stack: Python · JavaScript · TypeScript · R · MATLAB · SQL · React · Flask · FastAPI · TensorFlow · PyTorch · Scikit-learn · XGBoost · OpenAI API · Anthropic API · Streamlit · Hugging Face Transformers · OpenCV · MongoDB · SQL Server · Firebase · Google Cloud · Azure · Git · DBT · Power BI