

MIGUEL ANGEL BRAVO MARTINEZ DEL VALLE

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EDUCATION

San Diego State University , <i>College of Arts and Letters</i> , San Diego	August 2023 - Present
Master's Program in Big Data Analytics	GPA: 3.9
Miami University , <i>College of Engineering and Computing</i> , Oxford, Ohio	August 2022 - May 2023
Foreign Exchange Program	GPA: 3.84
University of Málaga , <i>Málaga</i> , Spain	September 2018 - May 2023
Degree in Electronics, Robotics and Mechatronics Engineering	GPA: 7.8/10
Honors: ISEP Scholarship, Honorary Scholarship	

RELEVANT COURSEWORK

- Artificial Intelligence
- Data Driven Security Java
- Fundamentals, Coding and Problem Solving with Java
- Web Application Programming

PROFESSIONAL EXPERIENCE

CodeGPT - AI4Business , San Diego State University, <i>CA</i>	January 2024 - Present
Research Assistant	

- Conducting a literature review to identify and evaluate the latest pre-training techniques for programming languages and natural languages, informing the integration process into the encoding methodology of the Code Search project
- Utilizing pre-trained models like CodeBERT, GraphCodeBERT, or UniXCoder to enhance encoding efficiency and effectiveness for code search tasks
- Integrating advanced pre-training techniques from Large Language Models (LLMs) to enhance semantic understanding and search performance, while continually integrating latest advancements from ongoing literature review.

Center for Information Convergence and Strategy , San Diego State University, <i>CA</i>	August 2023 - Present
Research Assistant	

- Conducting a study on nutrient dynamics in agricultural watersheds using the Tri-Space approach to analyze spatiotemporal data from the Agricultural Catchments Programme dataset in Ireland.
- Developing a comprehensive multivariate and multitemporal analysis, emphasizing correlations among variables, particularly chemical parameters, to understand nutrient dynamics and eutrophication in the watershed
- Handling and cleaning multivariable and multitemporal data with R to ensure their integrity and reliability in advanced analyses

HorstSort II - Smart Campus , University of Málaga, <i>Spain</i>	March 2022 - June 2022
Engineering Intern	

- Lead the integration of IoT technology into the Science Teaching Garden, enabling real-time monitoring of weather conditions and environmental parameters crucial for crop management and plant health
- Developed and implemented a comprehensive IoT device utilizing ESP8266 to collect and transmit data wirelessly, ensuring efficient and accurate monitoring of temperature, humidity, and light levels within the garden environment.
- Designed and deployed MQTT-based control systems for seamless data communication and remote monitoring of garden conditions.
- Integrated Telegram as a user interface through NodeRed, enhancing accessibility and usability of the monitoring system, enabling users to receive real-time updates and control garden actuators remotely with ease

LEADERSHIP AND INVOLVEMENT

Final Thesis on Project HortSost II , University of Málaga, <i>Spain</i>	March 2022 - June 2022
Author	

- Created a research paper with objectives, research observations, process methods, and conclusions on project results
- Elaborated a presentation and defense of my thesis to be presented to the examining board.

EF Academy Study Abroad , Oxford, <i>United Kingdom</i>	July 2019 - August 2019
Exchange Student	

- Reinforced my English grammar and composition by attending an intensive English immersion course

RELEVANT SKILLS

Languages: Spanish (Native), English (Advanced)

Programming: C++, Java, ROS, NodeRed, R, Python, HTML, SQL, MatLab, JavaScript

Technical Skills: Computer programming languages, Financial management, Writing

Interests: Cryptocurrencies, Stock Market

Aptitudes: Communication, Collaboration, Attention to Detail, Empathy, Multitasking, Positivity, Problem-Solving