

# MIGUEL ANGEL BRAVO MARTINEZ DEL VALLE

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## SUMMARY

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**Data Analyst** specialized in data visualization, automation, and pipelines. Skilled in Python, R, SQL, Tableau and React to transform complex datasets into clear insights. Experienced with large-scale data such as NOAA database and datasets. Strong problem-solving, communication, and collaboration skills. Personal projects, achievements and results are showcased on personal website.

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## EDUCATION

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<b>San Diego State University</b> , <i>College of Arts and Letters</i> , San Diego, California	August 2023 - May 2025
Master's Program in Big Data Analytics	GPA: 3.91/4
<b>Miami University</b> , <i>College of Engineering and Computing</i> , Oxford, Ohio	August 2022 - May 2023
Exchange Year Program in Electronics, Robotics and Mechatronics Engineering	GPA: 3.84/4
<b>University of Málaga</b> , <i>Málaga</i> , Spain	September 2018 - May 2023
Degree in Electronics, Robotics and Mechatronics Engineering	GPA: 7.8/10

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## PROFESSIONAL EXPERIENCE

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**iCharm - SDSU Climate Informatics Lab**, San Diego State University, CA June 2024 - Present  
Graduate Research Assistant

- Developing functions, tools and Data Visualizations components using Python, JavaScript [React] and API Frameworks. [Full Stack Developer]
- Processing structured and unstructured Big Climate Data repositories stored in the cloud and building data pipelines to manage it with Python.

**CodeGPT - AI4Business**, San Diego State University, CA January 2024 - May 2024  
Graduate Research Assistant

- Conducted a literature review on the latest pre-training techniques for programming and natural languages, union the integration of models like CodeBERT, GraphCodeBERT, and UniXCoder into the Code Search project.
- Enhanced code search performance by applying advanced techniques from Large Language Models (LLMs) and continually incorporating new findings to improve encoding efficiency and semantic understanding.

**Center for Information Convergence and Strategy**, San Diego State University, CA August 2023 - May 2024  
Graduate Research Assistant

- Analyzed spatio-temporal data from agricultural watersheds using the Tri-Space approach to study nutrient dynamics and eutrophication from the Agricultural Catchments Programme dataset in Ireland.
- Conducted multivariate and multitemporal analyzes, focusing on chemical parameter correlations, while ensuring data integrity and reliability through advanced cleaning and processing techniques in R.

**HorstSort II - Smart Campus**, University of Málaga, Spain March 2022 - June 2022  
Engineering Intern

- Led the integration of IoT technology into the Science Teaching Garden for real-time monitoring of environmental parameters (temperature, humidity, and light). Developed and executed a wireless sensor system using ESP8266 and set up remote control via MQTT and NodeRed, with Telegram as a user interface for remote updates and control.
  - Authored and defended a research paper summarizing project objectives, observations, methods, and conclusions. Successfully presented the thesis to the examination board as part of my degree in Electronics, Robotics, and Mechatronics Engineering.
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## AWARDS & INVOLVEMENT

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**Western Users of SAS and Open-Source Software [WUSS] Conference Scholarship** September 2024  
• Received the Student Scholarship and presented research on Machine Learning, focusing on Flight Delay Analysis and Prediction

**International Student Exchange Program Scholarship**, ISEP Organization August 2022 - May 2023  
• Highly competitive merit-based scholarship covering housing, tuition, and meals, along with a monthly stipend, enabling a year-long exchange at Miami University

**Honorary Scholarship**, *Sagrado Corazon de Jesus* June 2018  
• Prestigious academic distinction awarded to top-performing students for exceptional high school achievements

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## SKILLS

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**Programming & Data Processing:** SQL, Python (*Pandas*, *NumPy*, *Scikit-learn*)

**Statistical & Machine Learning Techniques:** Regression, Decision Trees, Gradient Boosting and Neural Networks

**Frontend Development:** React, JavaScript, HTML, CSS, Bootstrap, API Integration, Responsive Design