Ernesto Martínez Gómez

Valencia, Spain | +34 693 77 57 81 | emagodev@gmail.com | ernestomartinez.dev

Projects

Valencia Public Transport Analysis   *2024*

- Created and studied public transport networks in Valencia through graph theory, making a dataset with metrics for metro stations.
- Unified several open data sources to create and analyze the characteristics of Valencia neighbourhoods, including transport, economic and ecologic metrics among others.
- Applied several machine learning algorithms like clustering and principal component analysis (PCA) to analyze the connections between similar neighbourhoods and metro stations.

Business Description Classification   *2024*

- Project done at Zrive School for Coverwallet, an insurance company.
- Developed a model that predicts NAICS code's first two digits for any business using only its description with over 80% accuracy, using natural language processing techniques.
- Worked with techniques like tf-idf and used pre-trained models as word2vec, fasttext and distilBERT.

Pokemon TCG Card Detector   *2024*

- Scraped all Pokemon card information and images from the Pokemon TCG API and used them to create an image bank to compare similarities with the camera capture.
- Implemented a way to detect which card was on the camera using the imagehash Python library, in addition to pandas, PIL, and OpenCV image manipulation.
- Created an efficient desktop web user interface using tools such as Flask for the backend, along with HTML, htmx JavaScript library, and TailwindCSS.

Work Experience

Sales Associate at Running & Health Department | Decathlon   *July 2024 - September 2024*

Provided expert advice and guidance on running and health-related products to customers, ensuring a personalized and satisfactory shopping experience.

Education

Data Science Degree | Universitat Politècnica de València   *September 2022 - July 2026*

Honors in Python programming and Databases; Co-founder of Sigma Data Club UPV, leading the software and analysis team.

Applied Data Science Program | Zrive   *January 2024 - April 2024*

Intensive program designed for high-performing university students who want to launch their careers as Data Scientists.

Aditional Information

- Languages: native Spanish, fluent English.
- Worked as a teacher at private programming classes for university students.
- Graduated with honors in high school, with 9.8 average grade.
- Athletics track and field athlete, 400m Spanish Championship finalist in under 18 category.
- Several times orienteering Spanish champion in minor categories, participated in World School Championships in Orienteering (Estonia 2019).
- Other interests include hiking, web development, reading and graphic design.