



Galo Romero García

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ABOUT ME

Geospatial Data Engineer leveraging spatial databases, Python & SQL ETL pipelines, and GIS applications to deliver actionable geospatial insights. Proven experience in R&D projects, driving data-driven decision-making by transforming complex geospatial datasets into high-impact solutions.

WORK EXPERIENCE

IDENCITY – SPAIN

Business or Sector Professional, scientific and technical activities | **Department** GIS |

Website <https://www.idencityconsulting.com/en/>

GEOSPATIAL DATA ENGINEER – 08/2025 – CURRENT

- Build, process, and validate geospatial datasets across multiple spatial scales
- Design efficient and scalable ETL pipelines to transform and manage complex geospatial data
- Deliver reproducible Python workflows (GeoPandas, ORS) with fully documented code
- Develop accessibility isochrones for urban facilities using population-based criteria
- Produce high-quality geospatial outputs to support informed spatial planning and decision-making

MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES – SPAIN

Business or Sector Professional, scientific and technical activities | **Website** <https://www.ciencia.gob.es/>

GEOSPATIAL DATA SCIENTIST – 12/2021 – 04/2025

- Development of relational databases using PostgreSQL
- Creation and implementation of web mapping applications with Leaflet
- Generation and management of RDF and INSPIRE-compliant metadata
- Design and maintenance of online databases using Bootstrap Table, HTML5, and CSS3
- Statistical and spatial analysis using the R programming language
- Data management and analysis with Pandas and NumPy in Python
- Spatial data processing with GeoPandas in Python
- Data visualisation using Matplotlib and Seaborn in Python
- Large-scale data processing in Snowflake using advanced SQL, with a focus on cleaning, transforming, and efficiently modelling datasets
- University teaching experience in Computer Applications and Statistics

EUROPEAN COMMISSION – SPAIN

Business or Sector Professional, scientific and technical activities | **Website** https://commission.europa.eu/index_en

GEOSPATIAL DATA ENGINEER – 10/2020 – 11/2021

Systematisation of the data collected in the project HAR2017-83474-P (Networks and Rare Rocks in the Iberian Peninsula and the Mediterranean (VI-II millennium BC)) and their integration with those already obtained in HAR2012-34620 (New Technologies Applied to the Study of Mobility and Exchange: Green Beads and Ceramics Decorated with White Fillings from VI to II Millennium BC in the Iberian Peninsula from a Multidisciplinary Perspective) into a Spatial Data Infrastructure (SDI) and Geoportal according to the INSPIRE guidelines of the European Union.

The aim of the project is to transform the spatial data of the Iberian Peninsula (from a multidisciplinary perspective) into a Spatial Data Infrastructure (SDI) and a Geoportal according to the European Union's INSPIRE interoperability guidelines, which unify the criteria for the processing, storage and open distribution of spatial information.

The development of the SDI includes the following activities:

- Design of a Spatial Data Infrastructure (SDI)
- Database processing and modelling, including data cleansing and organisation
- Design and integration of the database model: After processing and standardising the data, developed the data model that supports and feeds the geoportal
- Design and implementation of a relational database model to handle complex and large-scale datasets
- Integration of alphanumeric and geographic data in PostgreSQL/PostGIS databases, and processing of spatial information using Geographic Information Systems (GIS)
- Design and development of the geoportal and various internal tools for data consumption and visualisation
- Testing and validation of the overall system functionality
- Data organisation, analysis, processing, and normalisation
- Implementation of routines and automation of network analysis using the SoNIA library in R, and the development of Shiny applications for network analysis, geovisualisation tools (geo-viewers), and database interaction

 **EVENOR-TECH** – SPAIN

Business or Sector Professional, scientific and technical activities | **Department** GIS | **Website** <https://evenor-tech.com/>

GIS TECHNICIAN – 01/2020 – 06/2020

Participation in the CONSOLE project (Contract Solutions for Effective and Lasting Delivery of Agri-Environmental-Climate Public Goods by EU Agriculture and Forestry).

- Performed statistical analyses using SPSS and R
- Prepared and wrote scientific and technical reports
- Conducted spatial analysis and mapping using ArcGIS and QGIS
- Managed and maintained databases, ensuring data accuracy and accessibility
- Supported project development through the research and analysis of bibliographic references

 **MINISTERIO DE EDUCACIÓN Y FORMACIÓN PROFESIONAL** – SPAIN

Business or Sector Professional, scientific and technical activities |

Website <https://www.educacionfpydeportes.gob.es/ministerio.html>

GIS TECHNICIAN – 09/2019 – 06/2020

- Digitised and mapped protected natural areas in Andalusia (Spain) using GIS platforms such as QGIS and ArcGIS

 **GEOGRAPHICA - CARTO** – SPAIN

Business or Sector Professional, scientific and technical activities | **Department** GIS and web development |

Website <https://carto.com/>

GIS TECHNICIAN – 03/2019 – 07/2019

Participation in the URBAN AUDIT project:

- Edited, corrected, and updated spatial data files in various formats using GIS software
- Managed and analysed spatial databases using SQL for geospatial data extraction and processing

● **EDUCATION AND TRAINING**

06/2022 – 07/2022 Spain

POSTGRADUATE COURSE IN GEOGRAPHIC INFORMATION TECHNOLOGY, ORGANISED BY CSIC (CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS) Centro Tecnológico de Supercomputación de Galicia (CESGA)

Website <https://www.cesga.es/en/home-2/> | **Field of study** Software and applications development and analysis

03/2022 – 03/2025 Sevilla, Spain

PHD CANDIDATE IN HISTORY Escuela Internacional de Doctorado Universidad de Sevilla (EIDUS)

Development of a Spatial Data Infrastructure (SDI) for the management and dissemination of archaeological data on European prehistory, focusing on the integration and harmonisation of heterogeneous datasets from multiple research projects to enhance accessibility, interoperability, and reuse within the academic and professional community.

(Thesis completed, pending submission)

Address Paseo de las delicias, 41013 , Sevilla, Spain |

Website <https://doctorado.us.es/estudios/programas-de-doctorado/historia>

2022

INTEGRATED SKILLS IN ENGLISH III - C1 (CEFR) Trinity College London

Website <https://www.trinitycollege.com/>

10/2019 – 07/2020 Sevilla, Spain

MASTER'S DEGREE IN TERRITORIAL MANAGEMENT Universidad de Sevilla

The focus is on specialisation in spatial and non-spatial databases, as well as Geographic Information Systems.

Address 41004, Sevilla, Spain | **Website** <https://master.us.es/mastergeografia/>

FIRST CERTIFICATE IN ENGLISH - B2 (CEFR) University of Cambridge

Website <https://www.cambridgeenglish.org/exams-and-tests/first/>

10/2017 – 04/2018

SPECIALIST COURSE IN TECHNICAL APPLICATIONS OF GIS IN PROJECT MANAGEMENT AND RESEARCH

<https://cfp.us.es/>

09/2015 – 07/2019 Sevilla, Spain

BACHELOR'S DEGREE IN GEOGRAPHY AND TERRITORIAL MANAGEMENT Universidad de Sevilla

Address Calle Doña María de Padilla, 41004, Sevilla, Spain |

Website <https://www.us.es/estudiar/que-estudiar/oferta-de-grados/grado-en-geografia-y-gestion-del-territorio>

● **HONOURS AND AWARDS**

01/2021

Extraordinary master's degree award – Universidad de Sevilla

● **SKILLS**

Data Gathering / Data Processing / Data Visualization / Data Analysis | Geographical Informational Systems (GIS) | HTML5 CSS Bootstrap | Python | R (programming language) | PostgreSQL | SQL | Semantic Web Technologies | Web Technologies | Spatial Analysis | Bootstrap Table | Git and GitHub | Visual Studio Code | Web mapping | LeafletJS | GIS: Esri ArcMap, ArcGIS Pro, ArcGIS Server, QGIS and Geoserver | Data Visualization Tableau | Snowflake | AI/Machine Learning

● **LANGUAGE SKILLS**

Mother tongue(s): **SPANISH**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C1	C1	C1	C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● **RECOMMENDATIONS**

Evenor-Tech GIS technician

Email fj.blanco@evenor-tech.com

Link https://drive.google.com/file/d/1UCyme17YBFY_2PdnyXC7xTAE_OMlsu11/view?usp=drive_link

Geographica S.L. GIS technician

Email jorge.chacon@geographica.com

Link https://drive.google.com/file/d/1YGvUEsbpiXfvlEz0HV5eKo0QNqYYFhps/view?usp=drive_link

● CONFERENCES AND SEMINARS

01/09/2023 – 03/09/2023 Belfast

Reuse or Nothing! the Materialisation of R Principle Through the Implementation of a Spatial Data Infrastructure: Pepadb.

European Association of Archaeologists

Link <https://www.e-a-a.org/EAA2023/Programme.aspx?WebsiteKey=4c013ea5-de96-432a-85f7-b1800c2303bf&hkey=f73d6cf5-b37e-4836-ad06-2ecea6b58060&Program=3#Program>

01/04/2023 – 03/04/2023 Amsterdam

The reusability of geospatial data in archaeology using web applications: PEPADB.

Computer Applications and Quantitative Methods in Archaeology

Link <https://zenodo.org/records/7930992>

03/04/2023 – 06/04/2023 Amsterdam

Implementantion of an archaeochemical tool for prehistoric data analysis and predictive modelling

Computer Applications and Quantitative Methods in Archaeology

Link <https://zenodo.org/records/7930992>

01/09/2022 – 03/09/2022 Budapest

Pepadb: Putting the FAIR Principles into Practice

European Association of Archaeologists

Link <https://www.e-a-a.org/EAA2022/Programme.aspx?WebsiteKey=13a70299-9cf2-4cc8-98c2-2862c5c6a8dd&hkey=01dc47f6-68bd-4d87-bcdf-183a7eb484d2&Program=3#Program>

● PROJECTS

01/03/2023 – 31/08/2024

Âmbar local e redes de troca na pré-história da Península Ibérica: caracterização das fontes portuguesas como um caso de estudo global (2022.09207.PTDC)

Link <https://sciproj.ptcris.pt/175913PRJ>

01/09/2022 – 04/2025

Arqueología de las falsificaciones y la percepción: adornos y autopercepción en el mediterráneo occidental - PID2021-124421NB-I00

Link <https://prisma.us.es/financiacion/15849>

05/10/2021 – 31/03/2023

Investigación y desarrollo de nuevas tecnologías para el discurso del poder: imitando adornos de ámbar en la prehistoria reciente de Iberia - P20_01080

Link https://investigacion.us.es/sisius/sis_proyecto.php?ct=1&cs=&idproy=33567

01/01/2018 – 31/12/2021

Redes y Rocas Raras en la Península Ibérica y el Mediterráneo (VI-II Milenio AC) - HAR2017-83474-P

Link https://investigacion.us.es/sisius/sis_proyecto.php?idproy=28512

01/2020 – 06/2020

CONSOLE

Machine learning models were implemented to estimate organic carbon levels in olive crops.

Link <https://cordis.europa.eu/project/id/817949/es>

03/2019 – 07/2019

Urban Audit

Improved the quality of data to support the implementation of performance indicators in European cities.

Link https://ec.europa.eu/regional_policy/policy/themes/urban-development/audit_en

● DRIVING LICENCE

Driving Licence: B

● SCIENTIFIC PAPERS

07/2024

A supervised multiclass framework for mineral classification of Iberian beads

We present a supervised multiclass framework for the mineral classification of prehistoric beads that can be used to infer mineral species from a matrix of compositional data. We trained and compared some of the most commonly used algorithms for classification tasks in a workflow that is reproducible and reusable without the need to install any piece of software. As a proof-of-concept, we chose the best performer to carry out a real use case with two sample sets from different sites.

Link <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0302563>

06/2024

Amber provenance as a Chrono-Cultural Proxy: Insights from FTIR analysis in the Iberian Peninsula

This study introduces new amber finds, presents fresh FTIR data on archaeological amber ornaments, and incorporates minor updates and bug fixes to the general catalog. It is the outcome of a thorough bibliographic review and on-site analysis and examination of the beads.

Link <https://doi.org/10.1016/j.jasrep.2024.104647>

06/2024

Crafting illusions: Human-made composite coating used to simulate amber beads in prehistoric Iberia

This paper aims to construct an empirically grounded narrative elucidating the development and function of resin-coated bead technology. Our methodology includes a comprehensive quantitative analysis of the coating and beads, an exploration of the interplay between technical choices and situational factors, and an investigation into whether the simulation of sensory performance characteristics played a pivotal role in the concept and design of resin-coated beads. Additionally, we synthesize data to unveil broader patterns related to the crafting and utilization of resin-coated and amber beads across time and space.

Link <https://doi.org/10.1016/j.jas.2024.106011>

01/2024

Unlocking archaeological data online via the PEPAdb (Prehistoric Europe's Personal Adornment Database) initiative for Open Science

PEPAdb (Prehistoric Europe's Personal Adornment Database) is a long-term, open-ended project that aims to improve access to archaeological data online. Its website (<https://pepadb.us.es>) publishes and analyses datasets about prehistoric personal adornment, drawing on the results of various research projects and bibliographic references.

Link <https://doi.org/10.15184/aqy.2024.2>