Galo Romero García

Nationality: Spanish   **Date of birth:** 19/08/1994

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📍 **Home:** Sevilla (Spain)

ABOUT ME

Software Engineer and Geospatial Data Specialist with expertise in ETL workflows, SQL, Python, and database modelling. I have experience developing scalable data architectures and transforming complex datasets into actionable insights. Skilled in building robust, efficient solutions, I focus on enabling data-driven decision-making and delivering measurable results.

WORK EXPERIENCE

🏢 *Nter Tech Services* – Sevilla, Spain

City: Sevilla | **Country:** Spain | **Website:** https://nter.es/ | **Name of unit or department:** Data & BI - **Business or sector:** Professional, scientific and technical activities

Software Engineer

[09/2025 – Current]

Ensuring data quality and system performance by implementing Python-based validation rules within a scalable ETL framework, processing large and varied datasets through robust data modelling practices.

🏢 *IdenCity* – Spain

Country: Spain | **Website:** https://www.idencityconsulting.com/en/ | **Name of unit or department:** GIS - **Business or sector:** Professional, scientific and technical activities

Geospatial Data Engineer

[08/2025 – 10/2025]

- 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

Country: Spain | **Website:** https://www.ciencia.gob.es/ | **Business or sector:** Professional, scientific and technical activities

Geospatial Data Engineer

[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

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

Geospatial Data Engineer

[10/2020 – 11/2021]

The project aims to convert archaeological data from the Iberian Peninsula into a Spatial Data Infrastructure (SDI) in compliance with the European Union's INSPIRE interoperability guidelines.

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

Country: Spain | **Website:** https://evenor-tech.com/ | **Name of unit or department:** GIS - **Business or sector:** Professional, scientific and technical activities

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

Country: Spain | **Website:** https://www.educacionfpydeportes.gob.es/ministerio.html | **Business or sector:** Professional, scientific and technical activities

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

Country: Spain | **Website:** https://carto.com/ | **Name of unit or department:** GIS and web development - **Business or sector:** Professional, scientific and technical activities

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

Postgraduate Course in Geographic Information Technology, organised by CSIC (Consejo Superior de Investigaciones Científicas)

Centro Tecnolóxico de Supercomputación de Galicia (CESGA) [06/2022 – 07/2022]

Country: Spain | **Website:** https://www.cesga.es/en/home-2/

PhD candidate in History

Escuela Internacional de Doctorado Universidad de Sevilla (EIDUS) [03/2022 – 03/2025]

Address: Paseo de las delicias, 41013 Sevilla (Spain) | **Website:** https://doctorado.us.es/estudios/programas-de-doctorado/historia

Development of a Spatial Data Infrastructure (SDI) for managing and disseminating archaeological data on European Prehistory, emphasizing the integration and harmonization of heterogeneous datasets from multiple research projects to enhance accessibility, interoperability, and reuse within the academic and professional community. (Thesis completed, pending submission).

Integrated Skills in English III - C1 (CEFR)

Trinity College London [2022]

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

MSc in Geography

Universidad de Sevilla [10/2019 – 07/2020]

Address: 41004 Sevilla (Spain) | **Website:** https://master.us.es/mastergeografia/ | **Field(s) of study:** Geospatial Technology

Master's degree in Geographic Information Systems (GIS), focused on spatial database design, management, and geospatial data analysis. Skilled in geo-dissemination through the development of web-based GIS services and clients for interactive geospatial visualization.

First Certificate in English - B2 (CEFR)

University of Cambridge

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

Geographical Information Systems for Project Management and Research Technical Application Course

https://cfp.us.es/ [10/2017 – 04/2018]

BSc in Geography

Universidad de Sevilla [09/2015 – 07/2019]

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 | **Field(s) of study:** Geospatial Technology

Bachelor's degree in Geography and Geographic Information Systems (GIS), with an emphasis on spatial database development and SQL-based geospatial data analysis and visualization.

HONOURS AND AWARDS

[01/2021] Universidad de Sevilla
Extraordinary master's degree award

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 / Spark

LANGUAGE SKILLS

Mother tongue(s): Spanish

Other language(s):

English

LISTENING C2 **READING** C1 **WRITING** C1

SPOKEN PRODUCTION C1 **SPOKEN INTERACTION** C1

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

RECOMMENDATIONS

Name: Evenor-Tech | GIS technician
Email: fj.blanco@evenor-tech.com

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

Name: 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
Implemantation 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