

# Blas Benito, PhD - Senior Data Scientist & Team Lead

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## Executive Summary

**Profile** ▶ 19+ years of international experience in data science, geospatial technology, and machine learning. Proven ability to translate cutting-edge research into production systems that drive business growth and sustainability outcomes.

**Current Impact** ▶ Lead Data Science Team at Biome Makers Inc, delivering four production systems that enabled flagship product scalability and directly shaped commercial strategy.

**Unique Value** ▶ Bridge advanced research with scalable, production-grade industry systems, applying quantitative and machine learning methods to complex geospatial and environmental systems, and leading data science teams that deliver measurable business impact.

**Core Strengths** ▶ Innovative problem-solving · Building and leading high-performing teams · Translating research into scalable production systems · System architecture for data-driven products · Clear and impactful communication · Adaptability in fast-paced environments.

**Technical Expertise** ▶ R · SQL · C++ · Python · Git/GitHub · CI/CD · Jenkins · Geospatial (PostGIS, GDAL/OGR, COG, Zarr, FlatGeobuf, STAC) · Machine learning & predictive modelling · EO (Sentinel-1/2, Landsat, SAR, multispectral data cubes) · High-performance & parallel computing · Data engineering & pipeline automation · Cloud & large data processing · Data visualization & dashboards.



## Professional Experience

### Senior Data Scientist & Team Lead | Biome Makers Inc (Spain/US) | 2021 – Present

- ▶ Built and **led a distributed 4-person data science team**: established code quality standards and review procedures, defined team rituals, and aligned quarterly planning with company strategic objectives.
- ▶ Architected and scaled a production system combining high-resolution Earth observation data and machine learning, mapping **200,000+ hectares** of soil microbiome and crop disease worldwide.
- ▶ Delivered solutions that secured **€2M+ in enterprise contracts**, directly shaping company strategy and enabling the commercial expansion of *BeCrop Farm*, the company's flagship product.
- ▶ Established operational stability procedures to maintain production system reliability across global deployments.

### Researcher & Scientific Software Developer | University of Alicante (Spain) | 2019 – 2021

- ▶ Developed **spatialRF**, an open-source library for spatial machine learning (**19k downloads**).
- ▶ Published **15 peer-reviewed papers** on spatial biodiversity modelling, including a *Most Downloaded Paper*.

### Researcher & Scientific Software Developer | Bergen University (Norway) | 2016 – 2019

- ▶ Led a €199K research project funded by the Norwegian Research Council.
- ▶ Developed **three widely used open-source libraries** (**distantia**, **memoria**, **virtualPollen**) for time-series analysis (**80,000+ downloads**).
- ▶ Published **six peer-reviewed papers** focused on time-series analysis, including an *Editor's Pick* and *Most Downloaded Paper*.

### Early Career — Research, Geospatial Modelling & Team Leadership | Spain & Denmark | 2006 – 2016

- ▶ Developed large-scale geospatial and time-series modelling pipelines for climate, biodiversity, and environmental research.
- ▶ Led research teams and secured €850K in competitive grants and government contracts.
- ▶ Authored **26 peer-reviewed publications** and **patented MODELER**, a metadata system for the Earth Sciences.

## Education

- PhD, Computational Ecology, University of Granada, 2010.
- International Master's in Geographical Information Systems (UNIGIS), University of Girona, 2009.
- Postgraduate courses in spatial analysis, time-series modelling, R, Python, and Perl, 2005-2014.
- Master's in Management and Environmental Auditing, University of Cádiz, 2006.
- BSc in Biology, specialization in Ecology, University of Granada, 2003.
- **Languages**: Spanish (native) · English (full professional proficiency)