

Roberto Sánchez Navarro

Data Scientist - Data Analyst



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About me

Data Scientist with a background in bioinformatics looking for real-world challenges.

I'm curious about the data, so I often take the extra step until it makes sense. Then, I like presenting it in a way that tells a story.

I'm continuously under training, learning new technologies every week, and when I pick one up, I enjoy passing that knowledge along to my peers.

Soft skills

Attentive to detail
Focused on quality
Good communicator
Highly motivated

Areas of specialization

Data Science
Data Analysis
Bioinformatics
Big Data

Interests

Running
Cycling
Hiking

EXPERIENCE

2022-2023

PhD Candidate

AALBORG UNIVERSITY · Denmark



Development of a python application for the detection and analysis of exopolysaccharide gene clusters in bacterial metagenomes. This entailed:

- Extensive retrieval of information from the published literature and collecting all existing genetic knowledge about the topic.
- Development of a Snakemake pipeline to retrieve data for an in-depth exploratory analysis of these sequences.

This allowed me to develop the following data science skills:

- Data wrangling in python using pandas, as well in-depth knowledge of the tidy framework in R, using dplyr and purrr's functional programming toolkit.
- Visualization in python using matplotlib, altair, and other libraries specialized in visualization of biological data. In R, I mastered ggplot and its extensions for bioinformatics.
- Reporting with jupyter notebooks, RMarkdown, and dashboard development with Shiny.

2021-2022

Research Assistant

AALBORG UNIVERSITY · Denmark



Genome mining of metagenome-assembled genomes from wastewater treatment plants looking for biosynthetic gene clusters, achieving a publication as a first author: **Sánchez-Navarro et al, 2022 *mSystems*. 10.1128/msystems.00632-22**

EDUCATION

2023-2024 **Big Data Analysis** MSc. · University of Murcia

2019-2021 **Biotechnology** MSc. · Aalborg University

2015-2019 **Biotechnology** BSc. · University of Murcia

2017-2018 **Exchange Year** ISEP · University of Tennessee

TECHNICAL SKILLS

Databases	MySQL · MongoDB · HBase · Neo4j
Big Data	Hadoop · slurm · Spark · Snakemake
DB Clients	sqlalchemy · pymongo · dbplyr · happybase
Machine Learning	caret · Keras · scikit-learn · TensorFlow
Development	conda/mamba · Docker · Git
Scraping	Scrapy · BeautifulSoup · rvest
Other	regex · API integration (Requests & http)

LANGUAGES

English	C1 (Advanced) + full professional proficiency
Spanish	Mother tongue
French	B1 Certificate
Danish	Beginner

PROGRAMMING

R	4 years	<div></div>
python	3 years	<div></div>
bash	3 years	<div></div>
LaTeX	4 years	<div></div>
SQL	1 year	<div></div>