



Juan Luis Ruiz-Tagle

FREELANCE DATA SCIENTIST

Profile

I am a data scientist with deep expertise in machine learning, spatial analytics and natural language processing. I deliver high quality technical solutions while keeping a sharp focus on my clients' business objectives.

Employment

Freelance Data Scientist

NOVEMBER 2022 – PRESENT

- Developed VRP algorithms adapted to fleets of electric vehicles, incorporating the constraints of charging time and limited range.
- Formed part of Antler's first cohort in Iberia together with 60 entrepreneurs.
- Taught an intensive course on Python and Data Analytics to 90 students at IESE Business School.
- Designed, built, and deployed machine learning models for various clients and use cases.
- Worked on personal side-projects specializing on LLMs, langchain and vector databases.

Data Scientist, CARTO

DECEMBER 2020 – OCTOBER 2022

CARTO is a startup focused on spatial data science solutions. I have:

- Implemented spatial statistics and ML algorithms in SQL to run them at scale on cloud data warehouses.
- Worked with spatial models for estimating accumulated litter in cities at a granular level.
- Designed spatial indexes for clients which combined target demographics, POI presence density and mobility data.
- Identified trends in hotspot areas for retail during the pandemic using human mobility data (origin-destination matrix computation, POI and time series analysis, etc)
- Built ETLs with Airflow to recurrently ingest spatial data from several data sources into our platform.

Data Scientist, ETS Asset Management Factory

DECEMBER 2019 – JUNE 2020

ETS Factory is a financial advisory firm which makes stock market investment recommendations driven by data science.

- I developed a RESTful API based on Flask which serves synthetic stock series created by generative models on demand.
- I put into production a novel deep learning portfolio investment strategy and deployed it to our internal servers to automate portfolio recommendations.

Data Analyst, Seedtag

APRIL 2019 – AUGUST 2019

Seedtag is an adtech startup which sells in-image advertisement.

- I built ETLs which aggregated data from Seedtag's advertising campaigns.
- I assisted the CEO on preparing the company's next funding round by analyzing revenues and client fidelity.

Education

Young Talent Path Assessment Boot Camp, IESE, Barcelona

JULY 2021

MSc, Data Science, Universidad Politécnica de Madrid, Madrid

SEPTEMBER 2019 – JUNE 2020

Details

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NATIONALITY

Spanish

Links

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Skills

Python

Spatial Data Science & GIS

Machine Learning

Deep Learning

Google Cloud

SQL

Apache Airflow

Apache Spark

Docker

Optimization

Version Control (Git)

Large Language Models

MLOps

Web development

Languages

Spanish

English

Swedish

French

Top 5%. Awarded with [prize](#) to the best academic record. [Master thesis](#): Stock Forecasting Utilizing News Sentiment Data: A Comparative Study

BSc, Information and Communication engineering, KTH Royal Institute of Technology, Stockholm

SEPTEMBER 2015 – JUNE 2018

Top 5% – GPA: 4.26 . [Bachelor Thesis](#): Speed comparison of convolutional neural networks in TensorFlow

Portfolio projects

TweetWars

A [service](#) that retrieves and compares the latest 200 tweets from any two Twitter accounts. The tweets are analyzed through sentiment analysis, emotion prediction, topic modeling. Results are then displayed in the form of a dashboard

Firecitadel

A [Twitter bot](#) which imagines stories and generates images using open source Diffusion models together with GPT-3.5

Spatial Modeling of New York taxi data

I run an EDA of taxi data in NY and combine it with socioeconomic data to build a [geographically weighted regression](#) model.

Finalist at Cajamar UniversityHack Datathon 2020

Together with my team, I got classified to the [final phase](#) of the Minsait Challenge. Our code is available on [Github](#).

Svenska Scraper

A [scraper](#) I built to help me study the Swedish language. Given a list of words in Spanish, it gathers their translations as well as example sentences.

Publications

Blog posts

- **Generating fake data with pandas, very quickly.** Published on [Towards Data Science](#), a Medium publication.
- **Can We Transform Words into Geographies?** Published on [Towards Data Science](#)
- **What to expect when throwing dice and adding them up.** Published on [Cantor's Paradise](#), a Medium publication.
- **Can neural networks predict the stock market just by reading newspapers?** Published on [Quantdare](#), a blog run by data scientists at ETSFactory.
- **Scraping Google Search (without getting caught)** Published on [Medium](#), about a scraping method resilient to IP blocking.

Conferences and presentations

- **Spatial Data Science Conference 2022:** gave a talk about CARTO Analytics Toolbox, I library of SQL functions for spatial analytics.
- **Webinar - Predicting consumer demand on Black Friday:** done in collaboration with Safegraph ([presentation](#) and [blogpost](#)).

Volunteer Work

Leader and main organizer of volunteering camp, Uganda

2017

Backed by [IYC](#) (NGO), I organized a volunteering camp where a group of 15 students from different countries went to Uganda. For 3 weeks we built a classroom in Kito, a poor village in the north-east part of the country. We raised 11.000 € to pay for the costs of the project.