

Junior Data Scientist H/F (6-month internship)_Biomass-Méthane - Kayrros

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Job description

Passionate about tech? Interested in energy and climate action? Join Kayrros, a tech scale-up using artificial intelligence and satellite imaging to fight climate change and transform the world's biggest industries.

Kayrros is a leading environmental intelligence company at the forefront of climate action that uses AI, satellite imaging, geolocation data and other sources of information to accomplish three main missions: reduce greenhouse gas emissions; protect people, assets and ecosystems from climate risks (flooding, wildfires); and facilitate and accelerate the energy transition.

Our team of experts and tech wizards is working to bring near-realtime transparency to energy and the environment, from crude oil inventories and solar energy to methane emissions, wildfire risks and afforestation. In just six years, the Kayrros team has grown to 150 experts in data science, mathematics and energy, representing over 20 nationalities and 10 spoken languages. The team works from six offices across three continents: our Paris headquarters, New York, Houston, London, Singapore and Bangalore. Our ~100+ clients including a wide range of stakeholders including government regulators and policymakers, international organizations, energy companies, asset managers, insurance companies, lending banks, trading companies and civil society.

Just in the last few months, Kayrros was recognized as a member of French Tech 2030, crowned by *TIME* magazine as one of the TIME100 Most Influential Companies in the world, by the *Financial Times* as a Tech Champion and by *Fast Company* as one of the five Most Innovative Companies in energy and the environment. Kayrros is the main data supplier to the UN Environmental

Program's International Methane Emissions Observatory (IMEO) and was acknowledged in the latest UNEP Global Methane Assessment report.

Kayrros is expanding its team of talented people dedicated to positively disrupting the world's biggest industries and shaping the future of energy and the environment.

Join us to make a difference!

We are currently recruiting for our Paris office, a Junior Data Scientist M/F (6 months internship)

The team you will be joining: the Methane & Biomass Product teams

The Methane team works on detecting methane emissions, a greenhouse gas 80 times more potent than CO₂ over the first twenty years, helping international institutions such as the UNEP-IMEO ([ref](#)). Kayrros processes data from multiple satellite sources to detect abnormal methane concentrations in the atmosphere, and then quantify the flow rate and identify the source of the emission.

The Biomass team helps regulators, investors and forest managers get insights into forest dynamics across the world. Building on Kayrros' satellite processing abilities, the Biomass team develops large-scale solutions for tasks such as biomass estimation, species recognition, deforestation quantification, or disturbances detection.

Role:

Data scientists play a key role at Kayrros, working both on R&D discovery topics and specific projects for customers. Most of their work consists of developing models using various methods based on recent scientific papers including computer vision, machine and deep learning, and signal processing. They also collaborate with data engineers to build robust pipelines and work hand in hand with data analysts to analyze and visualize the results of their models.

They face two main challenges:

- The diversity and complexity of data available. Kayrros has a strong expertise in remote sensing and has been working with data from many different sensors (multispectral, hyperspectral, SAR, LIDAR, geostationary).

Understanding the specificities of each technology and choosing the most appropriate for a given problem is therefore a crucial step.

- The diversity of problems. On the one hand, the Methane team focuses on the detection of methane leaks but also on physical models to quantify these events. On the other hand, the Biomass team focuses on forest and ecosystem dynamics to provide granular estimation of key metrics (tree height/count, deforestation rate, species diversity), and leverages the latest academic research and field measurements to better understand the driver of change.

As a data scientist, you will therefore have to:

- Formulate problems considering available data and project constraints.
- Explore and review existing approaches or relevant associated scientific literature.
- Design, implement and test algorithms.
- Continuously provide ideas to improve products and take part in all team discussions.
- Grow a culture around remote sensing data.

Requirements

Profile :

This is an ideal opportunity if you are looking for a six-month internship **starting between January and May 2024**, and you want to join an impactful company.

- You have a strong background and are passionate about image processing, machine learning, statistics, operations research. You are very interested in various topics including deep learning, time series analysis, computer vision, signal processing. You demonstrate experience in a least one of these areas
- You have strong programming skills in Python, SQL, Machine Learning libraries, data visualization packages and data manipulation. Previous exposures to GitHub and R programming preferred, or additional languages like Julia
- You are dynamic, curious and eager to learn about the questions underlying methane emissions monitoring and biomass.

- You can design and deliver working prototypes in a fast-paced environment and then put them into production with the help of data engineers
- You can communicate clearly in English, including with non-technical people
- You are willing to be an active member of the team and have a real impact to the company success

We encourage all qualified candidates, eager to learn and grow, to apply, even if they do not meet all of the requirements listed above.

Why join Kayrros?

- We are a young, fast-growing tech company and are extremely passionate about what we do.
- We are located in the WeWork building on Rue la Fayette, 75009 (free drinks, events and a vibrant atmosphere).
- You will work with an international team and practice your English (or Chinese, German, Greek, Portuguese...) on a day to day basis.