


## Company Description

The provision of clean fresh water is a serious environmental challenge, and Earth Observation (EO) has become an increasingly important tool to assess the spatiotemporal variability of surface fresh water and to monitor the quantity and quality of water on a regular basis. This is especially the case in territories where existing water information is sparse, difficult to obtain, and variable in content and validity. Monitoring of water quantity and quality is essential in order to characterize waters and identify changes or trends in water over time, or to be able to respond to emerging water problems, such as identification of sediment plumes, harmful algae blooms and red tides. EO is recognized as a reliable and cost-effective technique for describing and quantifying aspects of marine and inland water quality. Using satellite data archives dating back to 2000, it is possible to establish the long-term baseline conditions in water quality for any region of the World. Using near real-time satellite data, it is equally possible to derive the current environmental situation on both the local and regional scale. In AQUARADAR we are a product-service promoted by the startup AQUADAT to transform water quality data into useful information for different agents (Public, Private and Third Sector) OUR WHAT: Actionable water data. Solutions: AQUARADAR = Real Time Water Quality Monitoring Solution based on different data sources (Satellite, Drones, Multispectral Probes, ...)

## Information

 Deadline: 2022-05-31  
 Category: Academia  
 Province: Bizkaia

 Country: Basque Country  
 City: Bilbao / Donostia-San Sebastián

## Company

AQUADAT



## Main functions, requisites & benefits

### Main functions

Having a strong background in remote sensing data processing, modelling and machine learning techniques will help you succeed in your mission of: Applying satellite Technology for water body monitoring. Working on model construction, evaluation and delivery Monitoring of physical and biological parameters Being in charge of the analysis of time evolution and future prediction by means of models built from the collected data. Leading the planning and execution of field sampling campaigns for the development and validation of satellite observations, in-situ optical sensors, the validation with water samples, the intercomparison and evaluation of new sensors for in situ measurements and the preservation, processing and analysis of in situ and satellite data sets.

### Requisites

In AQUADAT team we are proud of our large working experience in the industry, but now, we want to step forward and create a more diverse team. Would you like to join us? We look for a pre-doctoral or postdoctoral fellow in ecoinformatics and modelling of human-environmental systems using earth observation and machine learning techniques.

APTITUDE: Bachelor's degree in computer science, ecology, geography, engineering or other fields of relevance to ecoinformatics. A strong background in computational modeling is required, along with strong programming skills (preferably in Java or other object-oriented languages) and a working knowledge of GIS and OGC standards. At least 2 years of experience in Remote Sensing and Remote Sensing projects: agriculture and water resources. Additional courses or master's degree specialized in Data Science technologies would be an asset. An excellent oral and written command of English is required. Familiarity with any of the following technologies is an asset: Git, GeoServer, Linux, RESTful web services, openCPU, Google Earth Engine, Python, R/Renjin, Protocol Buffers, JSON, Working knowledge of ontologies, artificial intelligence and automatic reasoning. Familiarity with any of the following methods would be an asset: agent-based modeling, network analysis, multi-criteria analysis, Bayesian network modeling, and cognitive mapping. Proactive and positive ATTITUDE Managing self and personal skills: Being aware of one's own behaviour and how it impacts on others, improving personal skills to adapt professional practice accordingly. Delivering excellent service: Providing the best quality service to external and internal clients. Establishing genuine and open long-term relationships to improve service levels. Seeking solutions: Taking a holistic view and working enthusiastically to analyze problems and develop viable solutions. Identify opportunities for innovation. Embracing change: Being open to and engaging with new ideas and ways of working. Adapt to unfamiliar situations, changing demands and roles. Effective use of resources: Identify and make the most productive use of resources, including people, time, information, networks and budgets. Engaging with the wider context: Improving your contribution to the organization by understanding the bigger picture and committing to the organization's values. Developing yourself and others: Demonstrating commitment to your own continuing professional development. Support and encourage others to develop their professional knowledge, skills and behaviors to enable them to reach their full potential. Working together: Work collaboratively with others to achieve objectives. Recognize and value people's different contributions to this process. Achieving results: Consistently meeting