WATER DATA ENGINEER / SCIENTIST

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, Multiparametric Probe...)

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

As a core component of knowledge building and sharing, water-related data and information are central to understanding and valuing the resource, including with regards to human and environmental needs, to inform decision-making. Many aspects of water resources cannot be valued or managed unless some data and information are available concerning its location, quantity and quality, and how these vary over time. 'Water data' are the physical, environmental, ecological, social, economic, cultural and political parameters of water use, availability and accessibility. 'Data' are " facts and statistics collected together for reference or analysis", whereas 'information' is a broader concept and includes " facts provided or learned about something or someone and/or what is conveyed or represented by a particular arrangement or sequence of things" (Oxford English Dictionary). Data are always discrete and computable, whereas information can be much broader and include quantified, qualitative or unmeasured knowledge. Data are not usually useful as information until assessed or presented in a context. The World Water Development Report Series has consistently highlighted the shortcomings in data and information availability to underpin the sustainable management of water. Despite their great societal value, hydrological data, including for groundwater, are still deficient across the globe. Although the increasing competition for water and the projected impacts of climate change further broaden the need for and value of hydrological data, the levels of publicly reported data are well below established benchmarks for station coverage. We look for a Data Engineer/Scientist with technical background and professional experience in the design and development of data ingestion, storage, transformation and analysis processes to perform the following functions within the R&D&i area oriented to IoT: Build data pipelines to acquire information from various sources. Design, develop and supervise the processing of data in a Big Data and IoT project. Structure and consolidate data for use in analytical applications. Effectively store, sort and draw conclusions from data. Work on innovation projects that are fundamental for the development of the company. Develop infrastructures that store, extract and transform data. Be an active part in the development of innovation and product strategy. Develop ETL processes and monitor their correct functioning.

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? APTITUDE Professional with university studies, preferably in Computer Engineering or Telecommunications, Statistics, Physics or Mathematics. At least 2 years of experience in the design and development of Data Science projects: Big Data, Business Intelligence or ETL. Courses or master's degrees specialized in Data Science technologies (Big Data,...) will be an additional asset. An excellent oral and written command of English is required. High level of use of git Knowledge in (it is not essential to master all technologies) will also be an asset: Elixir, Ruby, Java, Scala, R. Python, pandas, scipy, scikit-learn Spark, Hadoop and associated technologies, Databricks. SQL and non-SQL databases. Graph databases, Neo4j, Dgraph. Azure Data Factory, Azure Data Lake, AWS Glue, PowerBI. ETL: SSIS, Pentaho Kettle, PowerCenter. IoT protocols: MQTT, COAP, etc... Proactive and positive ATTITUDE Managing self and personal skills: Being aware of one's own behavior and how it impacts on others, improving