MACHINE LEARNING & DATA ANALYSIS EXPERT WITH PHYSICS/CHEMISTRY BACKGROUND FOR

Company Description

QUBIZ.team is a startup that aims to become the leading provider of quantum sensing solutions for water analysis. We aim to achieve this by developing a commercially viable, portable, and user-friendly quantum sensing system for detection of emerging contaminants in water in real-time, in concentrations below those stablished by the American and European regulations (up to levels of parts per trillion). These contaminants are integral to the manufacturing processes and final products of industries such as textiles and apparel, food packaging, construction, electronics, automotive, aerospace, medical devices, cosmetics, and pesticides. Despite growing awareness of their hazards, the number of these compounds in use continues to grow. Specifically, the alarming rise of these compounds in water sources globally during the last years poses significant threats to human health and environmental sustainability. However, current detecting methods are limited in scope, typically only identifying a small fraction of known compounds, and leaving a vast majority of potentially harmful compounds undetected. Additionally, the lack of standardized methods and reference materials for emerging compounds hinders accurate quantification and risk assessment. Moreover, existing detection methods, relying on lab-based analysis, are costly and time-consuming. This analytical approach hinders proactive water

Information

Deadline: 2024-11-30
Category: Business
Province: Bizkaia
Country: Basque Country
City: Bilbao

Company

QUBIZ.team

Main functions, requisites & benefits

Main functions

The ideal candidate will be responsible for designing, implementing, and optimizing machine learning models to analyze scientific data, particularly in the realm of NMR spectroscopy. We are seeking a candidate with advanced expertise in machine learning and data analysis, coupled with a strong foundation in Physics or Chemistry. Specific Tasks: To program algorithms for real-time detection of emerging contaminants in water. To develop machine learning protocols for NMR spectra prediction and identification. To apply advanced data analysis and visualize tools for NMR spectra interpretation (PCA, UMAP, statistical analysis).

Requisites

Required Skills: A Degree in Chemistry, Physics or Computer Science; PhD in Chemistry, Physics or Computer Science. At least 3 years of hands-on experience in data analysis. Statistical models, and machine learning methods (supervised/unsupervised learning, reinforcement learning) and algorithms (neural networks, clustering, decision tress, etc.). Experience with scientific programming (e.g., Python, R, MATLAB) and machine learning frameworks (e.g., TensorFlow, PyTorch, Scikit-learn). Excellent communicator & team player. Fluent business English language skills in speaking and writing. Desirable Skills: Knowledge on nuclear magnetic resonance (NMR) and/or on quantum sensors; 1D/2D-NMR measurement. Interpretation and structure elucidation skills. Knowledge on NMR applied to contaminants. Knowledge of NMR or LC-MS hardware (e.g., Bruker) and of associated analysis and automation software (e.g MNova, Analytical Studio, ACD/Labs softwares, Spinach).

Benefits

Full-time/Contract (initially for 3 years). On-site (option to work remotely when required). Competitive salary. Holidays: 22 working days + public holidays. In our team, we embrace diversity by providing an inclusive work environment in which you are welcomed, supported, and encouraged to bring your whole self to work. We offer a collaborative working environment. The Working Place: We work at a start-up accelerator tower (BAT tower; https://bacceleratortower.com/en/ in Bilbao downtown, where you will have access to an enriching environment where you will be able to connect to people working in many other start-ups and corporates. Every Tuesday, a community breakfast is offered in the tower, where different start-ups present their ideas; once per month an after-work party is organized; and constant entrepreneurship and business development related events and meetings are held in the tower.