Position Offered: UNIVERSITY GRADUATE
Project: *Advanced Strategies in Artificial Intelligence and High Performance for Data Analysis and Integration in Food and Health Science*

Technological and scientific fields: Data Analysis and Integration, Artificial Intelligence and High Performance Computing

Location: Oviedo, Principado de Asturias, Instituto de Productos Lácteos de Asturias

Research Group/PI: María Fernández García, www.ipla.es

PROJECT SUMMARY

Research in the food area has undergone significant changes in recent years with the development of omics techniques. This has resulted in a true revolution, generating an abundance of data whose analysis has required the development of new data analysis, bioinformatics, statistical, and computational techniques. However, it is necessary to take a step forward in the analysis capabilities and in the development of digital tools that enable better data integration and analysis, facilitating more efficient and accurate analyses by using or developing bespoke software for the center's research objectives. To achieve this goal, a continuous training plan is proposed, combining resources from IPLA and the Department of Computer Science and Artificial Intelligence at the University of Oviedo. There is also the possibility of training through a specialized master's degree, as well as an international stay at a renowned center in the field of digital technologies

PROFESSIONAL PROFILE

Minimum requirements:

Graduated in Computer Science or equivalent

Merits to be considered:

Demonstrable professional experience in intelligent data processing. Demonstrable professional experience in quantum simulation. Scientific articles and conference presentations on classical and quantum machine learning. System administration with Linux operating systems and knowledge of SLURM.

WHAT IS OFFERED

The project "Advanced Strategies in Artificial Intelligence and High Performance for Data Analysis and Integration in the Food and Health Science " focuses on the application of innovative technologies in artificial intelligence (AI) and high-performance computing (HPC) to address complex challenges in massive data analysis. This project will stand out for its interdisciplinary nature, combining expertise in computer science, mathematics, data science, and specific areas related to the problem at hand, enabling a holistic and efficient approach to the challenges posed. In terms of scientific and technological activity, the project will incorporate cutting-edge developments in AI, such as deep learning and neural networks, along with advanced HPC techniques. The training plan associated with the project is comprehensive, covering a total of 240 ECTS to be completed over the four-year duration of the contract. This plan will include specific training in emerging technologies for efficient data processing, artificial intelligence, high performance, and basic approaches to quantum machine learning. It will also feature training stays in research centers and collaborations with companies and/or technological institutes.

Contract conditions:

Indefinite contract for a University Graduate associated with the Momentum Project of 4 years' duration according to Spanish science law. Gross annual salary (37.000 € - 41.000 €).

Start of contract: before 31 December 2024

PRINCIPAL INVESTIGATOR CONTACT

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