Service ID S00242

Location   Remote, Spain

Performance testing of deep learning solutions

Provider service

University of Cordoba (UCO)

Link to content

https://agrifoodtef.eu/catalogue-of-services/performance-testing-deep-learning-solutions

Type of Sector

Arable farming, Food processing, Greenhouse, Horticulture, Livestock farming, Tree Crops, Viticulture

Accepted type of products

Data, Software or AI model

Type of service

Performance evaluation

Description

This service evaluates the performance of deep learning algorithms to determine their efficiency and feasibility for migration to embedded devices. By leveraging high-performance computing (HPC) and GPU resources, this testing helps developers understand how well their algorithms perform in terms of speed, accuracy, and resource consumption. The service is particularly beneficial for applications in food processing, such as beekeeping and pollen counting, where real-time data processing is essential.

How can the service help you

This service enables developers to optimise deep learning models for performance, particularly for applications that require deployment on resource-constrained embedded devices. It supports clients in identifying potential bottlenecks and improving model accuracy and speed, which are crucial for effective food processing applications.

How the service will be delivered

Customisation options include targeted metrics (e.g., inference speed, accuracy) and specific hardware requirements. Clients may also specify performance thresholds related to their intended use cases, such as processing pollen data in real time.

Service customisation

The service is conducted in Spain and involves performance testing on HPC and GPU platforms. Outputs include performance metrics, resource usage reports, and recommendations for model optimisation. Clients should provide deep learning models ready for evaluation and specify target metrics.