TEF agrifood

Assessment of AI algorithm performance

Provider service

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Link to content

https://agrifoodtef.eu/services/assessment-ai-algorithm-performance

Type of Sector

Arable farming, Greenhouse, Horticulture, Livestock farming, Tree Crops

Accepted type of products

Design / Documentation, Software or AI model

Type of service

Performance evaluation, Test design, Test execution, Test setup

Description

Support clients in defining metrics and testing their AI solutions in real life, in the field, or virtually. Within normal and "stressed" operating conditions, including AI-generated test cases, we assess the readiness of agriculture-related AI algorithms for classification (weeds, chromatic analysis of crops), surround understanding and perception capabilities (for safety, for navigation), yield measurement (quantity of produce, quality), and robotics (anomaly detection, etc.). Besides accuracy metrics, we have experience evaluating memory and computing power footprints, and by doing so, understanding bottlenecks and improving the energy efficiency of proposed solutions.

How can the service help you

This service allows the client to assess the performance of their algorithms by testing and comparing them with benchmark solutions, including state-of-the-art models and other solutions available on the market.

The service can support the client in transitioning from a prototype version to a more stable and robust one, aiming at obtaining a market-ready solution.

How the service will be delivered

The service execution lasts approximately 16 weeks, adjustable as needed.

There are no specific restrictions due to the vegetation period.The service can be executed remotely once the customer provides its algorithms and targets the optimisation needs in dedicated meetings.

Service customisation

Customisation for this service is possible given the wide spectrum of algorithms that can be used for many different purposes (i.e., anomaly detection, navigation software, fruit recognition). A limitation is that the algorithms must be executable on conventional hardware, either in the cloud or locally, without the need for dedicated hardware.