

GROUNDSEER FINDS YOUR BEST PERFORMING DATA ALGORITHM

In a big data world, truth is scarce. Imagine then what you could do if you knew where you stood to best decide where to go without having to wait for expensive true labels. Groundseer, a cross-industry algorithmic technique, measures the statistical accuracy of recognizers when no groundtruth is available.



GROUNDSEER SAVES TIME AND MONEY

Because humans do not need to curate a data stream to know the accuracy of algorithms

It allows you to see where you stand. Without requiring true IT integration, Data Engines' Groundseer saves time and money because humans do not need to curate a data stream to know the accuracy of algorithms.

Easily deployed in fields such as bioinformatics or security surveillance (e.g., is there a face in the image?), Groundseer looks at the pattern of discrepancies between decisions of recognizers to simultaneously ascertain

- The most accurate recognizer, and
- The prevalence of the true labels in data.

The ability to measure, without human curated data, the statistical performance of algorithms to classify or label data enables monitoring of data streams with greater confidence and decision-making on whether particular algorithms or detectors are malfunctioning. Robots, for example, could self-evaluate and discount information from defective detectors or sensors. Groundseer has many applications across industries. The following are just two examples.

Security Surveillance: Better than “wisdom of the crowds”, Groundseer provides the correct “minority report”. Recognizers trained to detect based on known “intrusion” signals could enable security software to operate using multiple algorithms simultaneously in a whole-is-greater-than-sum-of-its-parts scanning operation. Faulty cameras could be detected automatically. Alternatively, a security system can be refined through continuous testing of recognizers trained to seek anomalies to see which one most accurately identified security breaches.

Image analysis and Bioinformatics: Groundseer can be used with recognizers trained to recognize alterations in genetic sequences to enable a decision of whether cells are likely to be cancer or not. A similar assessment could be done using information extracted from images of cells or tissues.

In so many contexts, when comparing the performance of algorithms, groundtruth is scarce. Groundseer can provide the sight and insight to help.

If you could measure your algorithms in unlabeled data, what could you do?