



UCL - ICTEAM / Machine Learning Group

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Description

The aim of the group is to bring together researchers working on fundamental and applied aspects of artificial learning.

MLG researchers deal with datasets coming from various domains including: biomedical, commercial and geographical data; image, sound and text processing; food quality control, etc. This discipline is known, in computer science and other domains, as « Machine Learning », « Data Mining » or « Knowledge Discovery in Databases ».

The group studies the following topics:

- statistical modeling/inference, including sequential information (to predict an information or behavior according to known data)
- clustering (to discover homogeneous groups in complex and/or high-dimensional data)
- supervised classification (to classify previously unseen data based on past experience)
- information structuring (to structure the results obtained after a query to a search engine)
- time series prediction (to forecast electrical loads, financial series, etc.)
- collaborative filtering (for example, to suggest the most adequate product based on purchase records)
- data consistency checking and integration (for example, to detect duplicate in a client database)
- text mining (digital document processing)

Applications of the MLG research results cover various domains, often in collaboration with experts or industrials: genome analysis, text and image analysis, food quality control with spectra, electrical load forecasting, financial data prediction, biochemical networks analysis and pattern matching, study of firm growth trajectories, etc.

Les marchés

Industrie

Santé et bien-être

Les technologies

Big Data