**703**

**Target:** CPU utilization

Data preprocessing:

* Delete samples with missing values )The data was reduced from 26,305 to 16,421 samples after removing entries with missing values.(
* Feature selection: Recursive Feature Elimination (RFE), increasing style. Give R2 and RMSE values for each step.
* Data randomization
* Data Normalization
* 5-fold cross-validation
* Models: Stochastic Gradient Boosting (SGB) and Light Gradient Boosting Regression (LGBR).
* Optimizers: Botox Optimization Algorithm (BOA), Addax Optimization Algorithm (AOA), and Football Optimization Algorithm (FOA).
* Report Run time for all models.
* Metrics: R2, U95, RMSE, Average Absolute Relative Deviation (AARD), and SMAPE.
* Sensitivity Analysis: Copula.