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Grid Search CV

API:

class `sklearn.model_selection.`**`GridSearchCV`**(*estimator*, *param_grid*, ***, *scoring=None*, *n_jobs=None*, *refit=True*, *cv=None*, *verbose=0*, *pre_dispatch='2*n_jobs'*, *error_score=nan*, *return_train_score=False*)

estimator- A score function either need to be provided or scoring must be passed.

param_grid-Dictionary with parameters names (`str`) as keys and lists of parameter settings to try as values, or a list of such dictionaries, in which case the grids spanned by each dictionary in the list are explored.

Scoring- Strategy used to evaluate the performance of the cross validated model on the test set.

cv- cross validation number

Grid Search CV working

It is the process of performing hyperparameter tuning in order to determine the optimal values for a given model. the performance of a model significantly depends on the value of hyperparameters. Note that there is no way to know in advance the best values for hyperparameters so ideally, we need to try all possible values to know the optimal values. Doing this manually could take a considerable amount of time and resources and thus we use GridSearchCV to automate the tuning of hyperparameters.