

Hyparaxameterx Tuning

- * It is used to tune our Machine Learning Algorithm.
- * For example let's take our model as Linear Regression.

we call it by

Linear Regression ()

↳ If we remove this brackets empty, default parameters will be automatically initialized.

→ parameters are fit - intercept, normalize, copy-x, positive etc.

* If parameters were not given the only combination of default parameters will be initialized.

Grid search cv:

* In grid search cv we will create a grid consisting multiple options for a parameter.

eg

Fit_intercept : True, False

copy_x : True, False

n_jobs : 1, 5, 15, 20, 25

rank : 10, 100, 200

$2 \times 2 \times 5 \times 3$
combinations

↓
we have 60 combinations.

etc...

(we can use as many as params we want)

* Grid search cv looks at all those combinations and gives us best one out of All available combinations.

Randomized search CV:

- * It is also same as Grid search CV, but only checks predefined number of combinations, out of all the available.
- * we can use the parameter `n_iter` to define it.

eg ∴ If 120 combinations were available and my `n_iter = 25`, Then it's going to check with 25 Random combinations out of 120 and gives us best result.