

## Pros & Cons of KNN

### Advantages

Pros → ① KNN doesn't make any assumption about the distribution of the data.

② time cost less at the time of training

training in

Linear Regression

$\frac{m}{c}$

$\frac{c}{m}$

Error is minimum

optimal

### Cons/Disadvantage

too much time

① Lazy Learner :- Prediction

↳ Huge amount of data (Calculation started)  
(Avoid)

② k → optimal value

## Applications

↳ smaller data points

↳ Data imputation → null values

↳ SMOTE → oversampling

↳ research about how SMOTE works