Date ..../..../.....

Fitting :- The process of recognizing patterns in data

→ Overfitting :- When a model performs very well for training data but has poor performance with test data (new data), it is known as overfitting. In this case the model learns the details & noise in the training data such that it negatively affects the performance.

Reasons :- (i) Data used for training isn't cleaned (ii) size of training data ↓ (iii) high variance, low bias (iv) The model is too complex

Tackle Overfitting → i) Using K fold cross validation ii) using regularization techniques such as Lasso & Ridge (iii) Training model with sufficient data iv) adopting ensembling techniques

→ Underfitting :- When a model has not learned the patterns in the training data well & is unable to generalize well on the new data. it is called underfitting.

reasons :- 1) noisy data 2) high bias (or variance) 3) size of training data ↓ 4) model is too simple

tackle underfitting :- i) increase no. of features (ii) increase model complexity (iii) reduce noise iv) increase duration of training the data

Spiral