

# CROSS VALIDATION

classmate

Date

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## & HYPERPARAMETER TUNING

① Without HyperParameter Tuning  
Like for Linear Regression

i) from sklearn.model\_selection import  
cross\_val\_score

ii)  $mse = cross\_val\_score(model, X, Y,$   
 $scoring = 'neg\_mean\_squared')$

② With HyperParameter Tuning.

i) same as previous

sklearn.model\_selection import GridSe-  
archCV

ii)  $params = \{ 'alpha': [1e-15, 2, 3, 4,$   
 $5, 7, 9, 11, 15] \}$

iii)  $Model = GridSearchCV(model, params,$   
 $scoring = 'neg\_mean\_squared\_error', CV = 5)$

iv)  $Model.fit(X, Y)$

v) `ridge_regression.best_params_`  
`ridge_regression.best_score_`

Loss Fxn  $\Rightarrow$  (Loss = Error)