Validation (K-Fold cross validation) (Also ser Loocv) (ross - extends the concept of Validation by repetering traning and validating the model on different splits of The data • Ex in 5 Fold cross ralidation troning data is divided into 5 parts and the model is traved 5 times each time using a different part as the validation set

this is like rotating bettern parts of training date And at

Each validation set stoping evalidating Model and Men Faguring ont

What hyper parameters to change / other Model choices all in

hope that it will improve the Model atter each split.

2 split int test 2 and traning Data First All Data Allelle Training III Data 1/11 [Itest 1 Octa) Fold 1 Fold 2 Fold Fold Fold 5 = = traning sets K=5 ie 5 7 fold cross Validation Split 1 Folds Folds Folds Folds = Validation Split 2 Fold 1 Folds Folds Folds Finding Split 3 Fold 1 15 15 15 15 = test sot Baramphers 5 p lit 4 Folds Folds Folds # the test set gires us final rosults and 17

5 p 1 it 5 Folly (645) FOLLY asploning ones at the Kinal evaluation [trist [Data] end . this set is seperate and used for Model evaluation

Regularization

- refers to techniques used to prevent overtitting by adding constraints or penelties that discourage a model from becoming too complex or fifting to closely to training deh. it knows model parametes small. its like squerzing the repretion line, ammont of regularization

ceg. withour Regularization (overtit)

with Regularization 13 (600) Fir)

too much recularization Under fitring

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