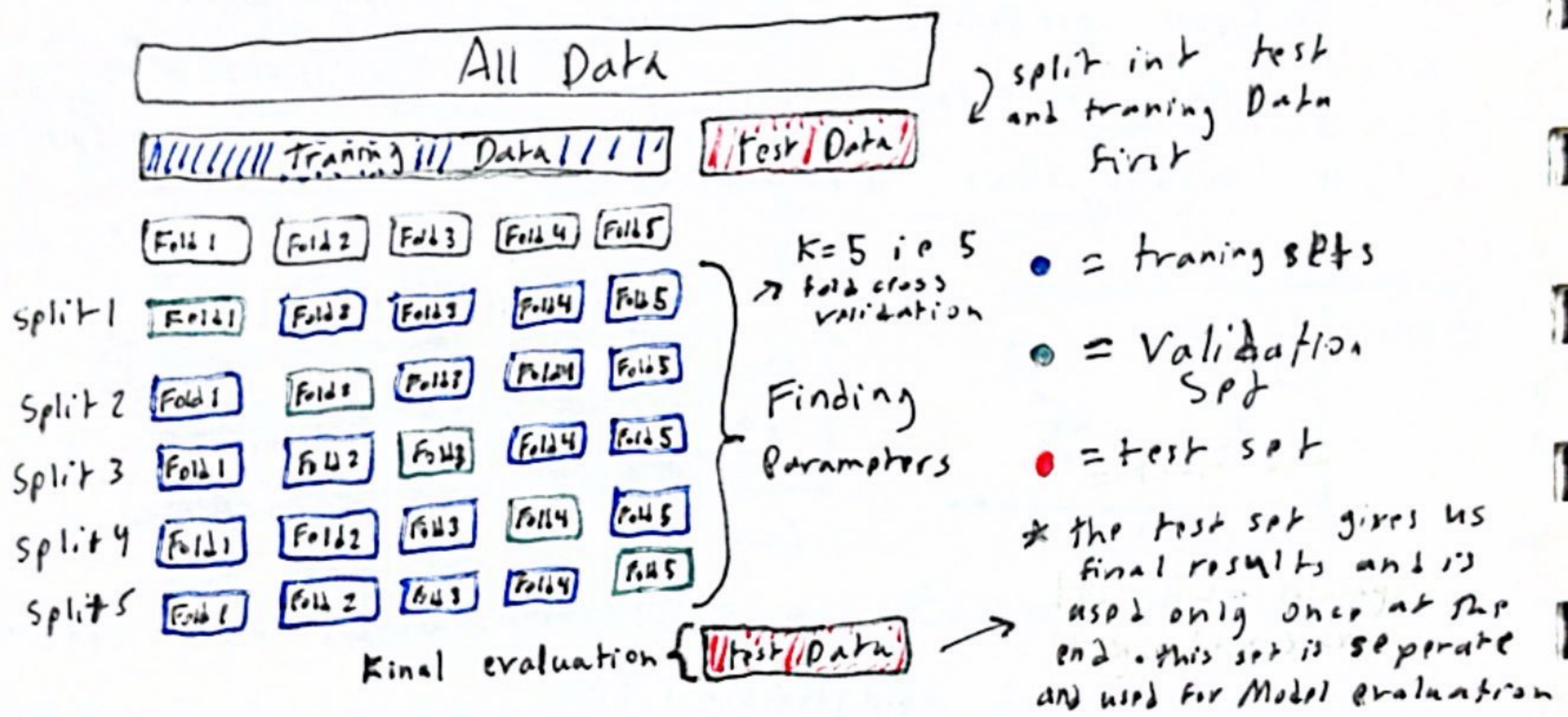


(Also see LOOCV) Cross Validation (k-Fold cross validation)

- extends the concept of Validation by repeatedly training and validating the model on different splits of the data. Ex in 5 Fold cross validation training data is divided into 5 parts and the model is trained 5 times each time using a different part as the validation set rest for training. Another way of preventing over/under fitting

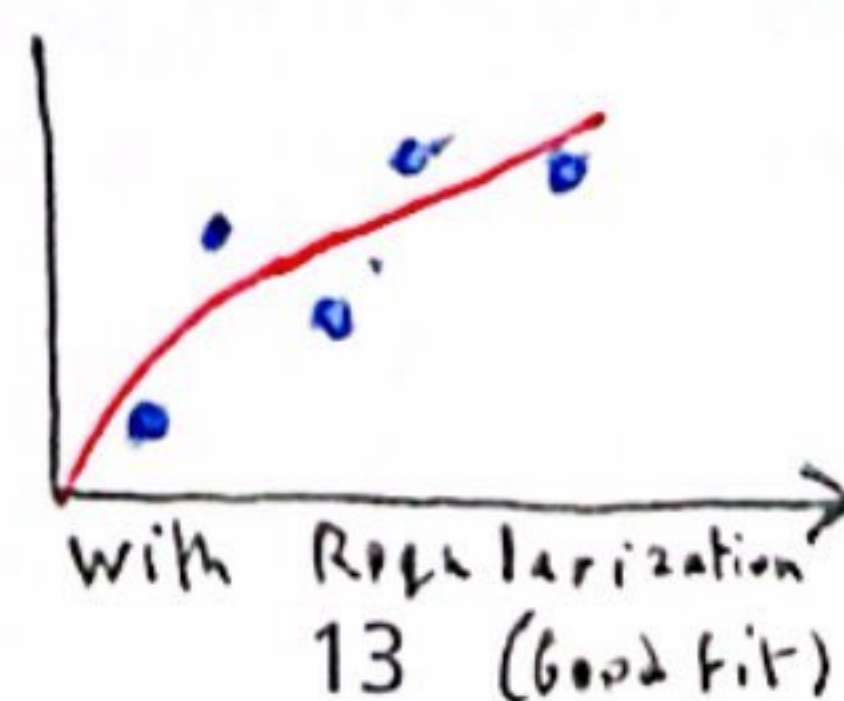
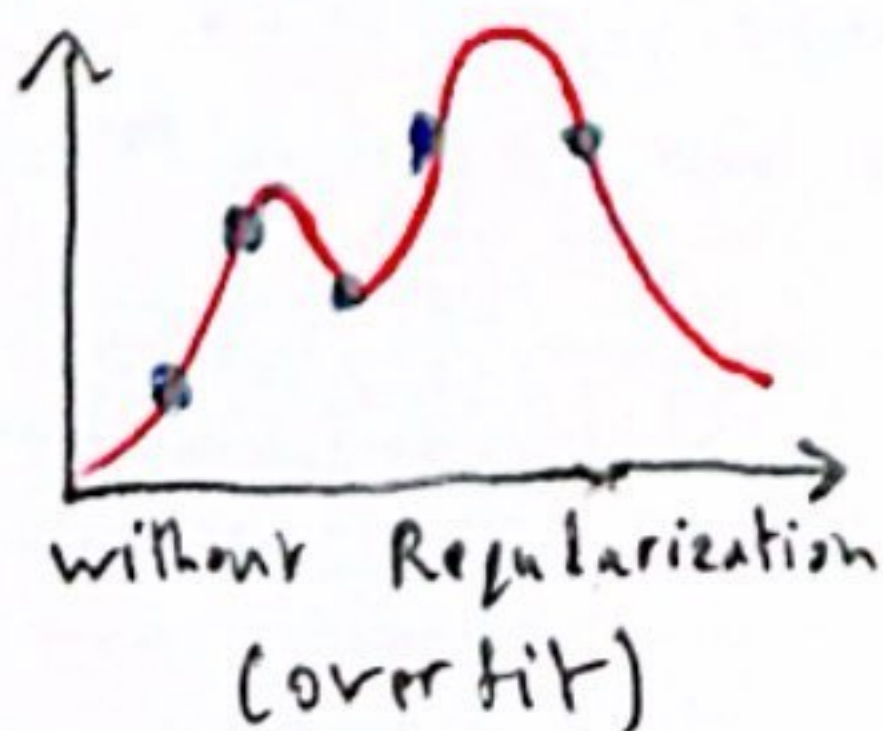
* This is like rotating between parts of training data and at each validation set stoping validating Model and then figuring out what hyperparameters to change / other Model choices - all in hope that it will improve the Model after each split.



Regularization

- refers to techniques used to prevent overfitting by adding constraints or penalties that discourage a model from becoming too complex or fitting too closely to training data. it keeps model parameters small. its like squeezing the regression line. amount of regularization is a hyperparameter

Ex: impact of reg.



* Too much regularization = Underfitting