ML ASSIGNMENT 6

Support Vector Regression

The free parameters in the model are C and epsilon.

The implementation is based on libsvm. The fit time complexity is more than quadratic with the number of samples which makes it hard to scale to datasets with more than a couple of 10000 samples. For large datasets consider using LinearSVR or SGDRegressor instead, possibly after a Nystroem transformer.

fit(X, y[, sample_weight])	Fit the SVM model according to the given training data.
get_params([deep])	Get parameters for this estimator.
predict(X)	Perform regression on samples in X.
score(X, y[, sample_weight])	Return the coefficient of determination of the prediction.
set_params(**params)	Set the parameters of this estimator.

Advantages of Support Vector Regression

1. It is robust to outliers.

2. Decision model can be easily updated.

3. It has excellent generalization capability, with high prediction accuracy. 4.

   Its implementation is easy.