

Linear Regression and Support Vector Machine

Take the [Geyser dataset](#) for the classification task. Split it on train and test parts.

Train the [Linear Regression](#) model on it. To do it, you should convert labels to numbers, where a positive class (P) will be encoded by '+1', and a negative (N) by '-1'. Cast linear regression predictions backward to labels. Compare them with real labels and print F_1 score. Print the resulting equation of the line.

Consider an [another dataset](#). Also split it on train and test parts.

For both datasets, train and test the [SVM model](#) on them. Try different kernels. For each kernel, find the best parameters for it and draw how the SVM model classify whole space with it. You can find an example [here](#).

Compare the SVM results (by F_1 score) with the Linear Regression.