

TP Cross Validation

1 Regression:

Use the temperature_pressure.csv data to train a polynomial regression model, using the two approaches below:

- Approach 1 (Validation)

Divide the data into two sets, one train set (80%) and one for the validation (20%)

- Approach 2 (Cross-validation with model selection)

Use the k-fold technique for cross-validation, test different k values, and select the model by testing different polynomial degree values.

Compare the errors of generalization of the two approaches and conclude.

2 Classification:

This time we will deal with a classification problem, for this we use the database Polydata.csv , and the logistic regression model, following the following two approaches:

3 - Approach 1 (Validation)

Divide the data into two sets, one train set (80%) and one for the validation (20%)

- Approach 2 (Cross-validation with model selection)

Use the k-fold technique to cross-validation, test different values of k and select the model by testing different values of degree of polynomial transformer

Compare the errors of generalization of the two approaches and conclude.