Berner Fachhochschule
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CAS Practical Machine Learning
Introduction

Project: Naive Bayes with Python

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Naïve Bayes (NB)

NB via scikit-learn

- documentation
  - http://scikit-learn.org/stable/modules/naive_bayes.html
  - http://scikit-learn.org/stable/modules/generated/sklearn.naive_bayes.GaussianNB.html
  - http://scikit-learn.org/stable/modules/generated/sklearn.naive_bayes.MultinomialNB.html
  - http://scikit-learn.org/stable/modules/generated/sklearn.naive_bayes.BernoulliNB.html
- datasets
  - Iris (Gaussian NB)
    - http://scikit-learn.org/stable/modules/generated/sklearn.datasets.load_iris.html
  - handwritten digits (Gaussian NB)
    - http://scikit-learn.org/stable/modules/generated/sklearn.datasets.load_digits.html
- evaluation
  - manually split dataset into training (80%) and test data (20%) and calculate accuracy
    - random split via http://scikit-learn.org/stable/modules/generated/sklearn.model_selection.train_test_split.html
    - accuracy via `score()` method of estimator
  - run cross validation http://scikit-learn.org/stable/modules/cross_validation.html
  - compare results with Decision Tree classifier (project 2)