

EINLADUNG

Zeit: Dienstag, 27.01.2015, 11:00 Uhr

Ort: E3, Raum 9222, Ahornstraße 55

Referent: Assoc. Prof. Dr. Mohamed Medhat Gaber
Robert Gordon University, Aberdeen, UK

Titel: Unsupervised Learning Techniques to Diversifying
and Pruning Random Forests

Abstract:

Random Forests, a frequently winning method at Kaggle competitions, is an ensemble learning technique used for classification and regression. The underlying classifier is a decision tree, as the name suggests. Each tree is built from a different sample of the dataset applying bootstrap sampling. Additionally with each node split in the tree, only a subset of the features is randomly considered for the calculation of the goodness of the attributes. As such a number of trees are generated to form the ensemble, usually set between 100 to 500 trees. In this talk, we shall report on the success of using a number of unsupervised learning techniques applied to Random Forests ensembles, demonstrating that a small subset of diverse trees can outperform traditional Random Forests. With pruning level reaching 99%, accuracy has been further improved or maintained. The talk will elaborate on the methods used, and the experimental results. Although the methods are applied to Random Forests, they can also be adopted to other ensemble learning methods.

Es laden ein: Die Dozenten der Informatik