Vienna University of Technology

184.726 Advanced Multiprocessor Programming

TU Wien Informatics

Programming Project

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Contents

Task Description - To Remove before Submission heheh

- 4 Datasets (2x from ex0, 2x from Kaggle TU Wien Informatics)
- Run 3 different Classifiers on all four datasets ($4 \cdot 3 = 12$ classifiers, yes integer arithmetic very hard)
- Choice of classifiers:
  1. Use classifiers from different paradigms. e.g.: dont use only tre based algorithms
  2. Use classifiers from already covered, not yet covered or not at all covered in the ML lecture
- Different Parameter Settings (Several results per classifier and dataset, not only random/best)
- Evaluate and analyze performance
- Make valid comparisons, e.g. across datasets, across classifiers
- How do results change when preprocessing strategies change? (explain impact, mainly scaling)
- Compare Holdout to Cross-Validation
- find multiple means of performance measures for classifiers
- Argue on choice of Performance Measures
- Argue on measures we took to ensure comparability of classifier performance

1 Classifiers and Performance Metrics

Classifiers

In task 1 of the machine learning course, we had to implement 3 different classification algorithms from 3 different classification paradigms:

- Bayesian Network Algorithm
- MLP Network Algorithm
- k-NN

2 Generic Chapter Title 2

3 Generic Chapter Title 3