RI Report

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1 Introduction

During our work, we have implemented and reviewed Structured classifier for different tasks including : Multi-class classification, hierarchical classification and ranking. As we would see, Structured models provide the ability to train a single model rather than training multiple binary classifiers. The idea is to fit use the dual problem to fit a single classifier using multiple optimization problem of reduced size rather than several binary classifiers.

2 MultiClass Kernel-based Vector Machines

Several ways have been used to represent However, such models doesn't have the ability to capture the inter-class correlations since its break the multi-class correlation into independent binary problems.

The goal of Structured SVM is to

3 Application to Information Retrieval and Computer Vision

Structural SVM have been widely applied to Computer Vision

4 Structured SVM for MultiClassification

We applied the Structured SVM classification to the usual task, obtaining the following loss curves :

Corresponding to the following loss curves :

Références

[1]

Multiclassification Structured SVM loss

matrice de confusion