Abstract

July 7, 2011

Talk title: “Relationships for Cost and Uncertainty of Decision Trees”.

**Abstract**: This talk is devoted to the design of new tools for the study of decision trees. These tools are based on dynamic programming approach and need the consideration of subtables of the initial decision table. The considered tools allow us to compute:

1. The minimum cost of an approximate decision tree for a given uncertainty value and a cost function.

2. The minimum number of nodes in an exact decision tree whose depth is at most a given value.

In addition to the algorithms for such tools experimental results applied to various datasets acquired from UCI ML Repository will also be shown.