

The thesis of Jiří Němeček is a quality production, both from the perspective of being well written, as well as the technical novelty and aptitude shown.

The student presents a comprehensive account of the use of integer programming in machine learning, and presents a detailed perspective on its use for decision trees, an effective and popular modeling technique for classification. He defines a sophisticated integer optimization that defines the structural requirements of the tree, explaining each of the large number of constraints. The criterion is changed from the standard in the literature for greater explainability, and the subtle distinctions are well illustrated with the final results. The final results look to have carefully prepared using the sophisticated RCI cluster and the plots interesting and illuminating.

Given the large quantity of novel content, some more division of sections for 3.1-3.2 would improve readability, but otherwise I have no significant criticism of the work.