Classifying car price ranges with neural networks

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1 Introduction

This project will try to find data pre-processing methods and a neural network that best predicts the buying price of a car, based on the car evaluation dataset. It will also compare performance and anccuracy between decision trees and neural networks on this dataset.

1.1 Related work

There are numerous articles that have studied the performance of different modeling techniques with respect to the car evaluation dataset. The article by Sameer Singh[2] discusses the performance of varying training set sizes for different classification methods for the car evaluation sets. Sameer used artificial neural networks, K-nearest neighbour, decision trees and support vector machines in order to classify the acceptability of each car.

An article[1] also explored the performance of data mining classification methods. Here the authors also focus on the pre-processing of the data. They discuss concepts like data-cleaning, data-transformation and splitting of the data-set.

References

[1] Jamilu Awwalu, Anahita Ghazvini, and Azuraliza Abu Bakar. Performance comparison of data mining algorithms: A case study on car evaluation dataset. *Int. Jour. of Computer Trends and Technology (IJCTT)*, 13(2), 2014.

[2] Sameer Singh. Modeling performance of different classification methods: deviation from the power law. *Project Report, Department of Computer Science, Vanderbilt University, USA*, 2005.