Prediction of Chess Endgame using Decision Tree and SVM Classifiers

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Abstract

Insert Abstract Text Here.

1 Introduction

1.1 Background\Problem Formulation

Discuss what a Chess Endgame is. Discuss how one would go about determining a Chess Endgame?

1.2 Outline of Report

In section(3) we discuss the theory and limitations of the two proposed methods. In section(3)

2 Dataset

2.1 UCI Machine Learning Database

Discuss the dataset from UCI. Format of the data.

Insert Math Formulations from previous paper written.

2.2 Parameterization

Discuss how we parameterized the data.

Insert Math Formulations from previous paper written.

3 Theory of Proposed Methods

3.1 Theory: Decision Trees

Theory goes here.

3.2 Theory: Support Vector Machines (SVM)

Theory goes here.

4 Simulation\Classification Results

4.1 Results: Decision Tree

4.2 Results: Support Vector Machine (SVM)

You can insert images by using the following code. Just place them in the figs folder and make sure they are in *.eps format.[1]

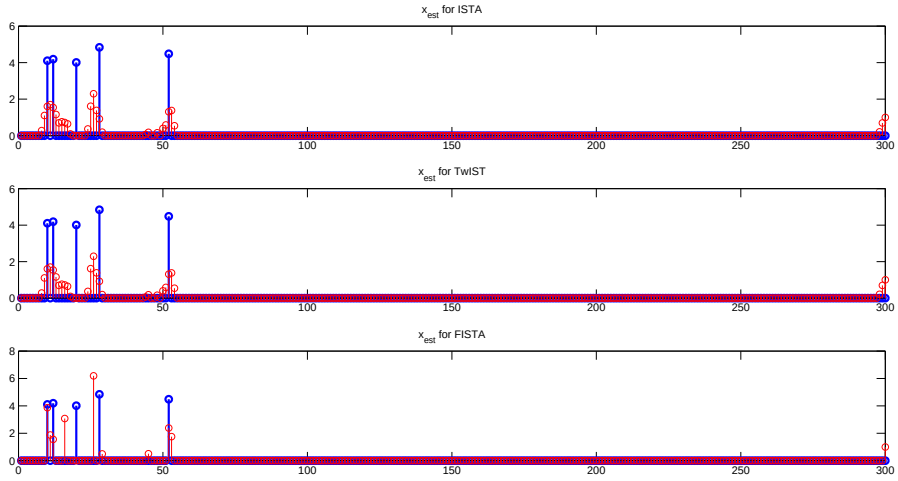

Figure 1: CaptionName: Test Image from figs folder

5 Conclusions

References

[1] Christopher M. Bishop, *Pattern Recognition and Machine Learning*, Springer, New York, NY 10013, 2006.

[2] Chih-Wei Hsu, "A practical guide to support vector classification," 2010.

[3] Asa Ben-Hur and Jason Weston, "A users guide to support vector machines," in *Data Mining Techniques for the Life Sciences*, vol. 609 of *Methods in Molecular Biology*, pp. 223–239. Humana Press, 2010.

[4] Nathan Srebro Shai Shalev-Shwartz, Yoram Singer, "Pegasos: Primal estimated sub-gradient solver for svm," *24th International Conference on Machine Learning (ICML)*, pp. 807–814, 2007.

[5] Slobodan Vucetic Zhuang Wang, Koby Crammer, "Multi-class pegasos on a budget," *27th International Conference on Machine Learning (ICML)*, 2010.