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Introduction

Chapter 1

Statement of the Problem

1.1 Definition and Applications

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Basic Methods

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2.2 k Nearest Neighbors Classifier

2.3 Artificial Neural Network Classifier

2.4 SVM Classifier

2.5 Boosting

Chapter 3

Advanced Approaches

3.1 Combined Boosting

3.2 Adaptive Feature Selection

Conclusion

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- [1] Konstantin Tretyakov. Machine Learning Techniques in Spam Filtering. Institute of Computer Science, University of Tartu. Data Mining Problem-oriented Seminar, MTAT.03.177, May 2004, pp. 60-79.
- [2] Xavier Carreras, Lluis Marquez. Boosting Trees for AntiSpam Email Filtering. TALP Research Center, LSI Department, Universitat Politecnica de Catalunya.