Parallelizing Supervised Machine Learning Algorithms for Classifying Stocks as Growth or Loss

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Abstract:-Our work demonstrates the implementation of supervised learning algorithms on Python and thus finding the optimize solution of complex machine learning algorithms on large data set with parallelism. Here we will be classifying the stocks of two companies with two different classification techniques (Support Vector Machine and K-nearest neighbor's) and thus comparing performance of parallel machine learning algorithms on execution time and accuracy.

INTRODUCTION

Extracting information from "Big Data" and thus making predictions have been used in many fields like medicine, astronomy, genetics, marketing and finance. Machine learning has been gaining pace because of its ability to improve the system without being explicitly programmed. In this work we present two major algorithms of machine learning with their usability in finance and marketing with proper optimization of time and computing. We will be using support vector machine(SVM) and K nearest neighbor classification model to compute the daily stock predictions (as growth or loss) of Reliance Steel and Amazon Inc. on parallel machine hence comparing the speed up and thus concluding on the best algorithm to predict stock price on such machines.