Development of Ensemble Stock Trader Based on the Using of Price Information Converted into Images, Fundamental and Technical Analysis Indicators

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Abstract

The usage of computer-aided stock trading techniques has been gaining popularity in recent years, mainly because of their ability to efficiently process historical information through machine learning to predict future market behaviour. There are several approaches to this task, with the most effective ones utilizing the fusion of multiple classifier decisions to predict future stock prices. However, usage of price information in individual supervised classifiers has been shown to lead to poor results, mainly because there is not enough historical market data to determine future market behaviour. In this paper we describe project to solve this problem by usage of methods from different fields of sciences: finance, computer vision and neural networks.

Keywords

Stock trend forecasting, Convolutional neural network, Deep Learning, Gramian angular field, Technical indicators, Fundamental analyses, Ensemble forecasting.