Empirical Evaluation of Neural Networks on Stocks of Pakistan Stock Exchange

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Abstract. Stock market attracts many investors to earn money by investing timely. But stocks are very volatile and their non-linear behavior make them more unpredictable and it is humanly impossible to predict the stocks accurately. Neural networks based machine learning techniques can be employed for the said purpose. Since there are many types of neural networks available, to find the suitable type and architecture of the network, problem specific empirical evaluation is required. This work focuses on assessing different types of neural networks for predicting stocks of Pakistan Stock Exchange. Recurrent neural networks are found to outperform other networks on all the evaluated stocks.

Keywords: Pakistan Stock Exchange, Feedforward Neural Network, Recurrent Neural Network, Deep Learning