Comparison of BPA-MLP and LSTM-RNN for Stocks Prediction

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Abstract— Neural networks is considered one of the most developed concept in artificial intelligence, due to its ability to solve complex computational tasks, and its efficiency to find solutions. There is a wide range of applications that adopt this technique, one of which is in the financial investment issues. This paper presents an approach to predict stock market ratios using artificial neural networks. It considers two different techniques-BPA-MLP and LSTM-RNN-their potential, and their limitations. Tests were conducted on different data sets, such as FacebookTM stocks, GoogleTM stocks, and BitcoinTM stocks. We achieve a best case accuracy of 97% for MLP algorithm, and 99.5% for LSTM algorithm. While the results appear to be promising, a web interface is presented in order to accept a certain amount of money, and accordingly checks the best stock to invest in.

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