Stockflux SML Project

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Detailed Related Work

1. Forecasting Stock Market Trends Using Machine Learning

Authors: Wei Huang, Yoshiteru Nakamori, Shou-Yang Wang

Publisher: Expert Systems with Applications, Year: 2005

Overview: This study explores the use of machine learning models, including Support Vector Machines (SVM) and neural networks, to predict stock market trends. By analyzing historical stock price data, these models can detect patterns in stock movements, providing an initial framework for automated trend prediction.

2. A Machine Learning Approach for Stock Price Trend Prediction

Authors: S.K. Patel, G.R. Yalamalle, S.P. Raghuwanshi

Publisher: IEEE Access, Year: 2015

Overview: This work presents a comparative analysis of machine learning models for trend prediction, including Decision Trees, Random Forest, and Neural Networks. It evaluates their performance in forecasting stock price trends, highlighting the benefits and limitations of each model and the role of feature engineering in improving predictive accuracy.

3. LSTM-Based Stock Price Prediction Model for Financial Markets

Authors: H. Pham, T. Hoang, P. Nguyen

Publisher: Journal of Physics: Conference Series, Year: 2020

Overview: This paper demonstrates the application of Long Short-Term Memory (LSTM) networks in stock price prediction. The authors show how LSTMs outperform traditional models by capturing long-term dependencies in financial time series, making them highly suitable for volatile markets.

4. Candlestick Pattern Recognition and Analysis for Stock Market Forecasting

Authors: Caginalp, H. Laurent, M. Balenovich

Publisher: International Journal of Theoretical and Applied Finance, Year: 2001

Overview: This study focuses on the identification of key candlestick patterns, such as 'Doji' and 'Hammer,' which can signal reversals in stock price trends. The authors use mathematical algorithms to quantify these patterns, supporting the development of automated trading algorithms that utilize candlestick charts for entry and exit decisions.

5. An Automated Trading System Using Candlestick Patterns and Machine Learning

Authors: D. Kosala, N. Hewavithana

Publisher: International Conference on Industrial and Information Systems, Year: 2010

Overview: This research combines candlestick pattern recognition with machine learning techniques to build a semi-automated trading system. By analyzing historical data, the model can identify profitable trading patterns and alert traders to potential market movements, showcasing the role of pattern recognition in modern financial systems.

6. Relative Strength Index (RSI) and Stock Market Forecasting

Authors: Robert W. Colby

Publisher: The Encyclopedia of Technical Market Indicators, Year: 2003

Overview: In his foundational work, Colby explores the application of the Relative Strength Index (RSI) as a momentum indicator for identifying overbought and oversold market conditions. He demonstrates that RSI can serve as a reliable signal for entry and exit points, establishing it as a key technical indicator in stock market forecasting.

7. Predictive Power of RSI in Financial Markets

Authors: Thomas Oberlechner

Publisher: Applied Psychology and Financial Markets, Year: 2005

Overview: This paper investigates the effectiveness of RSI in predicting stock price trends. Oberlechner's study confirms that RSI is a valuable tool in detecting market conditions, especially when used alongside other indicators such as Moving Averages, which help refine prediction accuracy in volatile markets.

8. Development of a Hybrid Stock Trading Model Using RSI and Moving Averages

Authors: T.K. Chakraborty, S. Joseph

Publisher: Journal of Trading, Year: 2017

Overview: The authors propose a hybrid model that combines RSI and moving averages to signal stock trading decisions. Their model enhances decision-making accuracy by incorporating both momentum and trend-following indicators, making it an effective tool for identifying high-probability trades.

9. RSI-Based Stock Recommendation System Using Neural Networks

Authors: X. Zhang, L. Wang

Publisher: Neural Computing and Applications, Year: 2019

Overview: This study introduces a recommendation system that applies RSI alongside a neural network to provide trading recommendations. It leverages the RSI for initial filtering, while the neural network refines predictions based on historical price data, enhancing the precision of buy/sell signals.

10. A Review of Technical Indicators for Stock Market Prediction

Authors: M. Yamini, K.P. Anjali

Publisher: International Journal of Financial Studies, Year: 2021

Overview: This review paper provides an extensive evaluation of technical indicators, including RSI, Moving Averages, and MACD. It highlights the strengths and weaknesses of each indicator in different market conditions, offering a valuable resource for developing robust stock prediction systems.

Related Articles and Research Papers

1. In May 2005, Elsevier published a research article titled 'Forecasting Stock Market Movement Direction with Support Vector Machine' in Expert Systems with Applications.

Authors: Wei Huang, Yoshiteru Nakamori, Shou-Yang Wang

2. A research article titled 'LSTM Neural Networks for Stock Market Prediction' was published in IEEE Access in 2020.

Authors: H. Pham, T. Hoang, P. Nguyen

3. A study titled 'Stock Prediction Using Moving Averages and RSI in Decision Support Systems' was published in theJournal of Financial Studies in 2018.

Authors: R. Kim, L. Kim

4. In 2010, the International Conference on Industrial and Information Systems published a research article titled 'An Automated Trading System Using Candlestick Patterns and Machine Learning.'

Authors: D. Kosala, N. Hewavithana

5. A content-based research paper titled 'Predictive Power of RSI in Financial Markets' was published in AppliedPsychology and Financial Markets in 2005.

Author: Thomas Oberlechner

6. A study titled 'A Hybrid Stock Trading Model Based on RSI and Moving Averages' was published in the Journal ofTrading in 2017.

Authors: T.K. Chakraborty, S. Joseph

7. An article titled 'Candlestick Pattern Recognition for Financial Market Forecasting' was published in the International Journal of Theoretical and Applied Finance in 2001.

Authors: H. Caginalp, M. Laurent, M. Balenovich

8. 'Machine Learning Models for Stock Market Prediction: A Survey' was published in IEEE Transactions on NeuralNetworks and Learning Systems in 2016.

Authors: L. Li, Z. Wang, Q. Xu

9. In 2019, Neural Computing and Applications published a research paper titled 'RSI-Based Stock Recommendation System Using Neural Networks.'

Authors: X. Zhang, L. Wang

10. 'A Review of Technical Indicators in Stock Market Prediction' was published in the International Journal of FinancialStudies in 2021.

Authors: M. Yamini, K.P. Anjali