



PROJECT REPORT

COMPARISON K-NN REGRESSION AND SVR MSE IN 5 MOST ACTIVE STOCK BASED ON HISTORICAL DATA

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ABSTRACT

This project aims to address the challenge of accurate stock price prediction by comparing the error prediction of two popular machine learning algorithms, K-Nearest Neighbors Regressor (KNN-R) and Support Vector Regressor (SVR) based on historical stock data. Based on previous research about stock prediction, the study evaluates the error in predicting future stock prices based on features such as historical price and volume. The SVR is evaluated for its ability to fit a regression model that minimizes prediction errors. In terms of accuracy, KNN Regression is hypothesized to outperform SVR. The models are trained and tested across multiple stock datasets, and results indicate that SVR consistently achieves superior predictive performance compared to KNN Regression. These findings highlight the importance of selecting the right algorithm for stock price prediction.

Keywords: stock prediction, K-Nearest Neighbors Regression, Support Vector Regression, accuracy, historical data

