Stock and Crypto Future Forecast Engine

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Abstract: *The stock and cryptocurrency markets are highly volatile and influenced by a range of economic, political, and social factors, making accurate predictions a complex task. This project presents a Stock Market and Cryptocurrency Future Forecast Engine, leveraging advanced machine learning models to analyze historical stock and cryptocurrency data and provide accurate future price predictions. The system integrates with Flask to offer a user- friendly web interface where investors and traders can input stock or crypto asset details and receive intelligent forecasting insights.Time-series forecasting algorithms such as LSTM and XGBoost are employed to predict market trends.The engine supports both traditional stock assets and leading cryptocurrencies like Bitcoin, Ethereum, etc., offering real-time analytics, trend visualizations, and buy/sell recommendations based on predictive modeling and risk assessment strategies.By combining deep learning, financial analytics, and natural language processing, the system aims to assist investors in making informed decisions and improving their portfolio management across both traditional and digital financial markets. This integrated forecasting engine empowers users with real-time, data-driven insights, enhancing strategic financial planning and investment execution.*

Keywords: Machine learning, Deep learning, LSTM, XGBoost, Yfinance