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(57) Abstract :
The present invention provides a system that comprises a data collection module (1) that gathers historical Bitcoin price data, including timestamps, trading volumes, and market indicators from diverse sources. The collected data then undergoes preprocessing within a dedicated module, addressing missing values and outliers to ensure data quality. Subsequently, the time series analysis module (3) employs advanced techniques, such as ARIMA or machine learning algorithms, to process the preprocessed data and create a time series dataset. An additional feature processing module (4) extracts relevant features, including technical indicators and sentiment measures, enhancing prediction accuracy. Finally, the prediction module (5) generates Bitcoin price forecasts, complete with confidence intervals, providing users with probabilistic predictions for various time horizons, empowering informed decision-making in the cryptocurrency market.

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