



STOCK PREDICTION FOR SERITAGE GROWTH PROPERTIES (SRG) STOCK  
PREDICTION FOR SERITAGE GROWTH PROPERTIES (SRG) USING LSTM NETWORKS

# INTRODUCTION

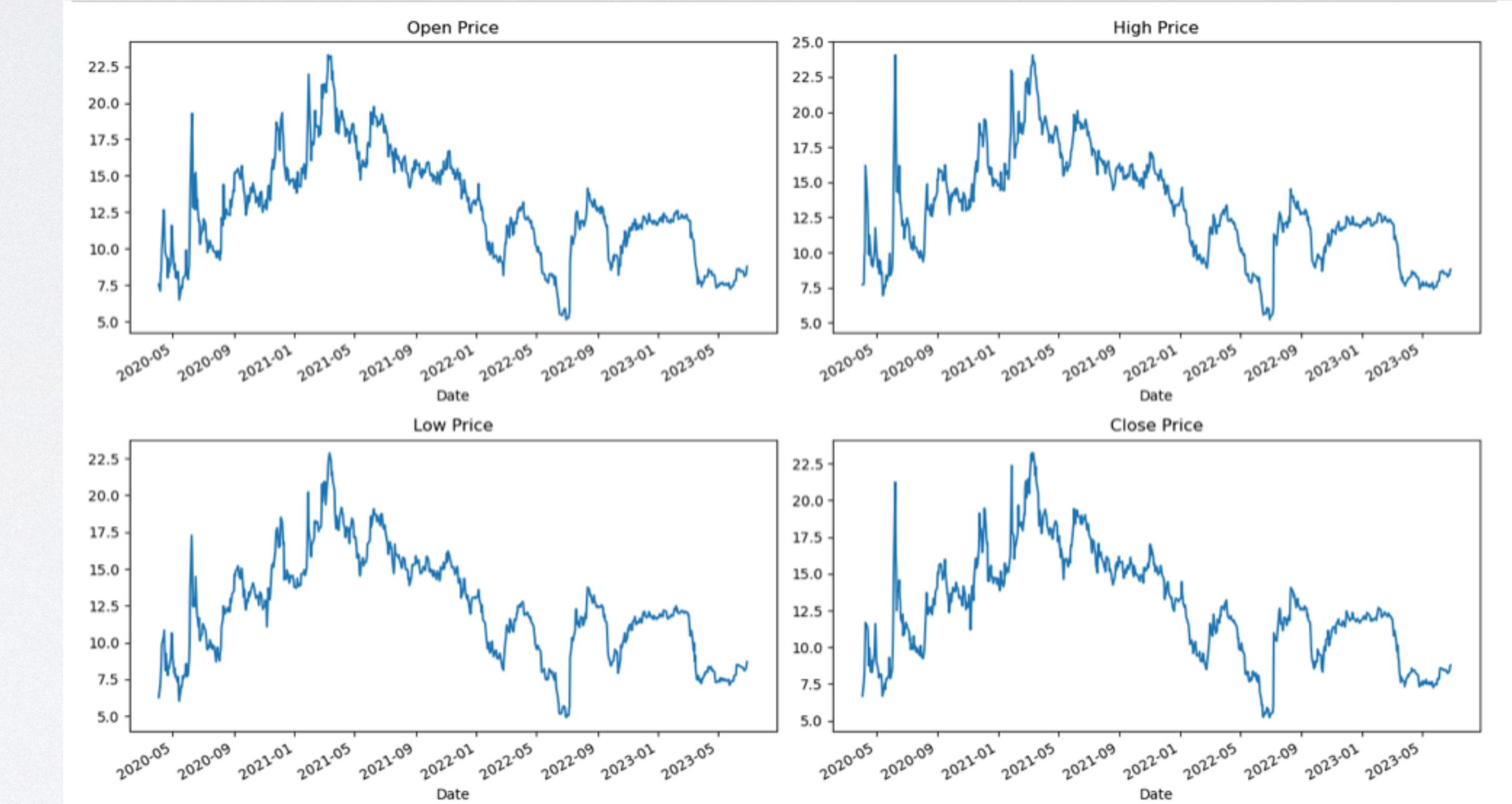
- Project Aim: Develop a predictive model for short-term SRG's stock prices
- Use historical data, financial indicators, and potentially sentiment analysis
- Provide an actionable tool for investors

# DATA COLLECTION AND PREPROCESSING

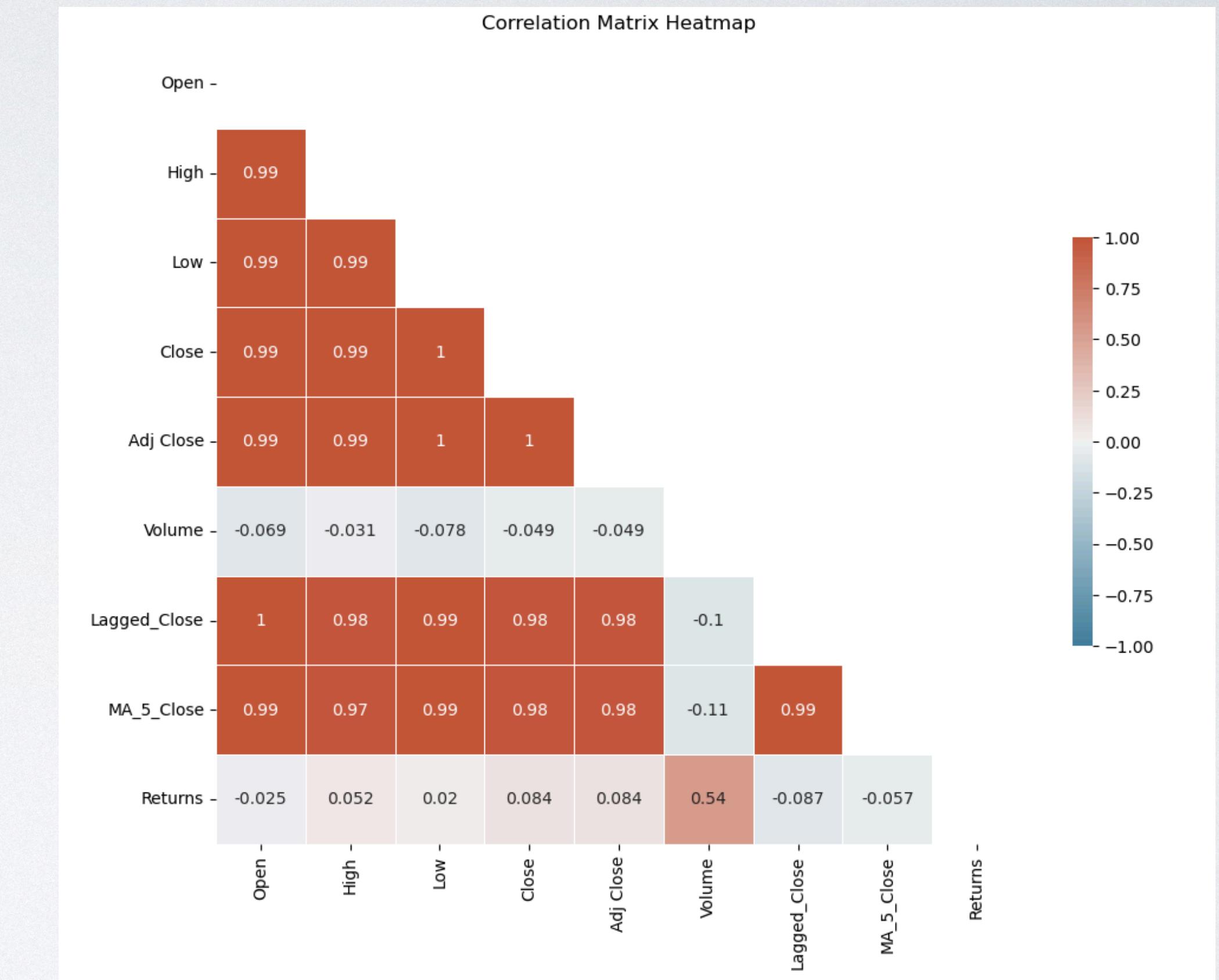
- Data Sources: Finance APIs, financial reports, databases, and sentiment data
- Preprocessing: Checked for missing values and data types, created new features

# EXPLORATORY DATA ANALYSIS

- Descriptive statistics to understand data distribution
- Time series plots to visualize trends
- Histogram to view trading volume distribution



- Created features: Lagged prices, moving averages, and returns
- Stationarity Testing: Augmented Dickey-Fuller test
- Correlation Analysis: Heatmap generation

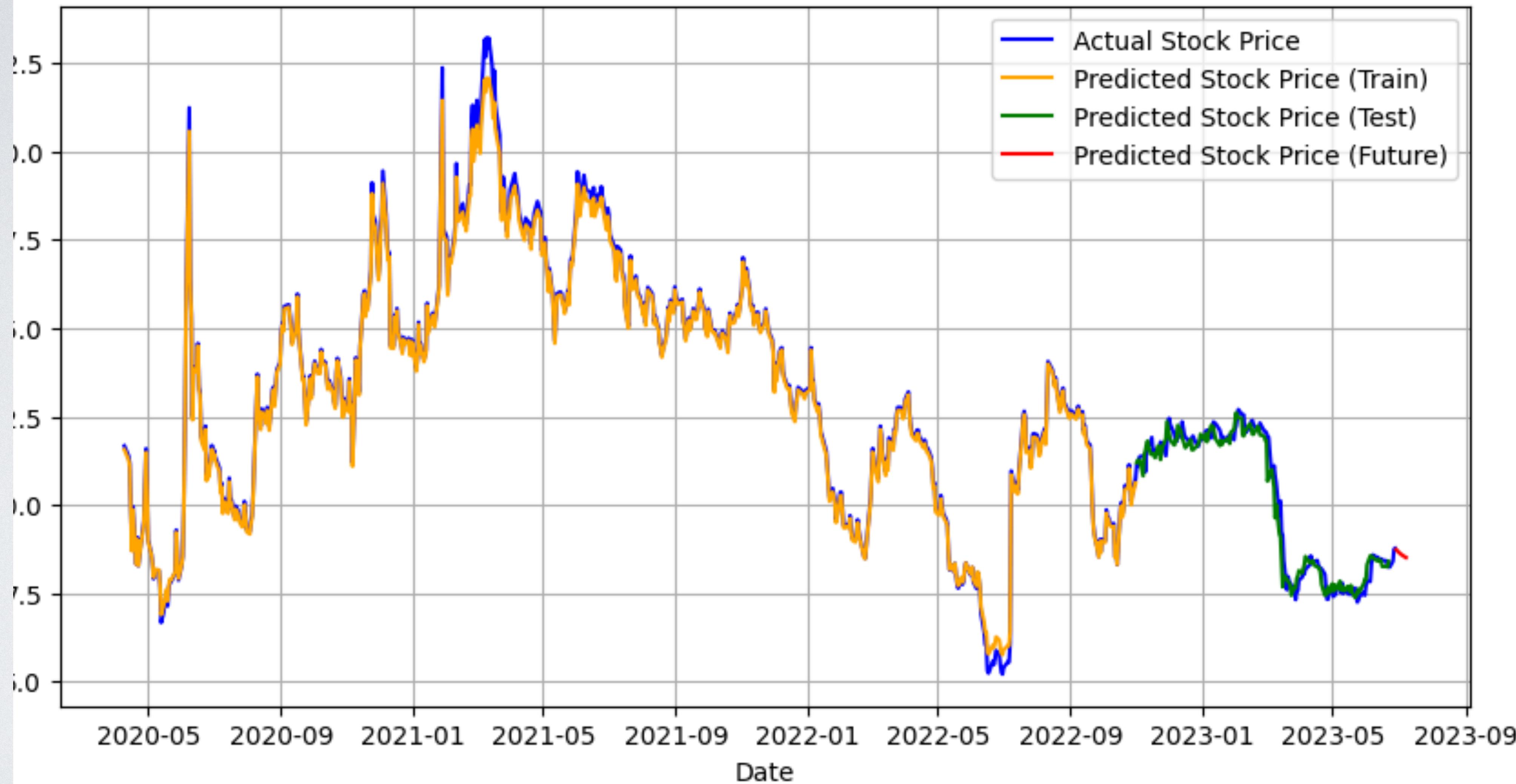


# MODEL BUILDING AND EVALUATION

- LSTM: RNN variant, capable of learning long-term dependencies
- Data Preparation: Selected 'Close' price, normalized data, split into training and testing sets
- Model Architecture: LSTM layer, Mean Squared Error as the loss function, Adam as the optimizer

- Model Training: 100 epochs
- Performance Evaluation: Mean Squared Error (MSE) metric
- Future Predictions: Made using last 'look\_back' days of data

## Stock Price Prediction



# CONCLUSION

- LSTM model: High precision in predictions
- Unpredictable Nature: Stock market influenced by numerous non-quantifiable factors
- Model Performance: May vary under different market conditions or with other stocks



# RECOMMENDATIONS

- Confidence Intervals: Provide along with point predictions
- Model Testing: Test model on different stocks and under different market conditions
- Model Improvement: Explore other features and model types

# FURTHER RESEARCH

- Extend the project: Explore more detailed sentiment analysis or additional economic indicators
- Test other model types or ensemble methods
- Continually evaluate and improve the model due to the dynamic nature of the stock market