SPX Options Backtesting Report

Generated: 2025-06-29 23:07:39

Dataset Summary

Total option contracts analyzed: 1,000

Date range: 2024-09-16 15:15:00 to 2025-05-23 20:16:42

Strike range: $200 - $12000

Time to expiry range: 3 - 2101 days

Model Performance Summary

strike: MAE = 5302.2293, RMSE = 5460.2922

last_trade: MAE = 9.0033, RMSE = 21.9323

bid: MAE = 1.2315, RMSE = 4.0849

ask: MAE = 1.2315, RMSE = 4.0849

mid: MAE = 0.0000, RMSE = 0.0000

BS: MAE = 0.5311, RMSE = 1.0756

BT: MAE = 0.5950, RMSE = 1.4166

MC: MAE = 0.5546, RMSE = 1.1202

Random Forest_ML: MAE = 2.5740, RMSE = 8.9635

XGBoost_ML: MAE = 2.4392, RMSE = 11.1989

Linear Regression_ML: MAE = 47.7304, RMSE = 70.5879

SVR_ML: MAE = 14.2354, RMSE = 36.8134

Gradient Boosting_ML: MAE = 3.1638, RMSE = 10.2521