Vikrant_BTC/USD Trading Strategy Backtesting Challenge Summary

a. Strategy Logic

My trading hypothesis centers on Bitcoin's strong trending characteristics that can be systematically captured through convergence of RSI (14-period), MACD, and 50-day SMA indicators. I developed entry logic requiring RSI ≥ 30 (oversold recovery), MACD crossing above signal line (bullish momentum), and price above SMA (uptrend confirmation), with reverse conditions for exits. This multi-indicator approach filters false signals while capturing substantial price movements during trending phases.

b. Key Performance Metrics

My system achieved 684.6% returns ($6,846 profit on $1,000) over 2019-2023, significantly outperforming Bitcoin's 363.95% buy-and-hold benchmark with an excellent Sharpe ratio of 5.05. The strategy executed 20 trades with 45% win rate, averaging 37-day holding periods, with largest win of $6,206 during 2020-2021 bull market. Average wins of $1,435 substantially exceeded average losses of $552, though maximum drawdown reached 48.98% with an 8-trade losing streak during 2022 bear market.

c. Comparison/Ranking

This represents my single algorithmic trading strategy submission, demonstrating a good backtesting with proper lookahead bias detection and realistic transaction cost modeling. The strategy's ability to nearly double benchmark returns while maintaining better risk-adjusted performance positions it as a strong systematic cryptocurrency trading solution.