

# Quantamental Strategy Overview

This systematic strategy manages a portfolio of Bitcoin and Ethereum, based on underlying signals derived from quantitative processes. It has the ability to independently go long, short, or remain flat in each of the target assets based on a weighted combination of variables, including price action, technicals, on-chain indications, as well as both retail and macroeconomic sentiment.

The model's position adjustments are driven by an expected price action forecast over a specified look-ahead window (24-72 hours). By drawing on a broad set of inputs and leveraging data-driven, quantitative analysis, this strategy aims to be more adaptive and reactive than traditional momentum models. In prior demonstrations, the core approach has received notable recognition, including an award in Bitcoin Magazine's Bitcoin Alpha Competition.

For each Bitcoin and Ethereum respectively:

- 100% Long: Indicates a bullish outlook on the asset
  - 0% Exposure (Flat): Represents a neutral outlook on the asset
  - 60% Short: Indicates a bearish outlook on the asset
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## Data Universe

1. Price and Volume  
Used to identify market trends, momentum shifts, or reversals, and to detect short- or medium-term patterns that inform directional bias.
2. On-Chain  
Examination of blockchain metrics such as network activity, transaction volumes, and key usage statistics. These factors reveal underlying network strength and behavior.
3. Retail Sentiment Analysis  
Observes the attitudes and opinions of individual traders and investors, as captured from social media, forums, and other public sources.
4. Macroeconomic Sentiment Analysis  
Evaluates broader economic signals (e.g., interest rates, global equities performance, central bank policies) to anticipate how shifts in the macro environment might influence crypto markets.

# Strategy Methodology

- **Composite Signal Construction**

The data from the verticals above—along with additional macro/technical feeds—are each processed and normalized. Free parameters (e.g., factor weightings, normalization ranges, and thresholds) are determined through an iterative process involving walk-forward and out-of-sample testing to mitigate overfitting. The resulting scores for Bitcoin and Ethereum are combined into a single directional signal per asset.
- **Dynamic Positioning**

Based on the strength of the composite signal, the strategy can allocate anywhere from a full long exposure to a partial short position, or remain flat if the outlook is neutral. Positions are re-evaluated at an hourly interval.
- **Risk Management**
  - The model aims for a balance of return and risk-adjusted performance (Sharpe).
  - Multiple frameworks exist to ensure robust trade execution.
  - The strategy does not apply additional leverage beyond its core parameter set (1x nominal), although actual exposure levels can fluctuate with market conditions.
- **Why It Works**

By combining diverse data sources—macroeconomic, on-chain, sentiment, and technicals—the system captures nuanced market signals that traditional momentum or purely technical models might overlook. Critically, all optimization and calibration steps (weights, thresholds) are validated on data segments not used for initial training, ensuring that the model is identifying robust and lasting relationships, reducing the likelihood of overfitting.

# Historical Backtest / Simulation Results

- Leverage: 1x
- Start Date: 01-01-2022
- End Date: 12-31-2024
- Compounded Annual Growth Rate (CAGR): 121.77%
- Cumulative Return: +993.03%
- Sharpe Ratio: 1.95
- Sortino Ratio: 3.32
- Calmar Ratio: 4.42
- Annualized Volatility: +43.46%
- Max Drawdown: -27.53%

## Performance By Year

2022: +41.28%    2023:  
 +189.38%        2024:  
 +170.19%

2022	2.89	-3.41	20.69	-1.41	7.66	15.86	10.90	5.36	-12.52	1.00	-3.47	-3.87
2023	34.38	7.59	15.72	11.23	2.26	2.87	-4.52	2.25	-1.61	20.98	10.55	12.69
2024	10.49	44.88	6.23	-5.58	5.29	-3.63	-0.01	4.59	9.88	5.82	38.56	-1.57

## Backtest Disclaimer

*The results presented are for simulation purposes only and are not guaranteed to be accurate. This backtest is based on a standard specification utilizing approximately 1x leverage; however, at times, the maximum exposure may exceed this threshold. The simulation incorporates assumptions for fees and slippage, which may vary significantly across different exchanges and may not be replicable in live trading conditions.*

*It is important to note that the live version of this strategy may operate with leverage levels higher or lower than those used in this simulation; therefore, the simulated returns may not directly correspond to the performance of the live strategy. Past performance is not indicative of future results, and actual results will vary. The performance results contained herein are for informational purposes only and are not meant to imply that an investment in the strategy will produce results similar to those shown. No assurance can be given that the investment objectives described will be achieved, and investment results may vary substantially on a quarterly, annual, or other periodic basis. All calculations presented are made using best efforts to ensure accuracy; however, we cannot guarantee nor assume liability for the accuracy or reliability of such data. Any data based on past performance, modeling, or backtesting is not indicative of future performance, and no representation is made that the strategy's investment processes or objectives will, or are likely to be, achieved.*