

## Tables (24)

Name	Type	Schema
<b>analyst_ratings</b>		CREATE TABLE "analyst_ratings" ( "symbol_ticker" TEXT, "rating_date" TEXT, "firm_name" TEXT, "analyst_name" TEXT, "rating" TEXT, "rating_numeric" REAL, "rating_change" TEXT, "previous_rating" TEXT, "price_target" REAL, "previous_price_target" TEXT, "price_target_change_percent" TEXT, "upside_to_target" REAL )
symbol_ticker	TEXT	"symbol_ticker" TEXT
rating_date	TEXT	"rating_date" TEXT
firm_name	TEXT	"firm_name" TEXT
analyst_name	TEXT	"analyst_name" TEXT
rating	TEXT	"rating" TEXT
rating_numeric	REAL	"rating_numeric" REAL
rating_change	TEXT	"rating_change" TEXT
previous_rating	TEXT	"previous_rating" TEXT
price_target	REAL	"price_target" REAL
previous_price_target	TEXT	"previous_price_target" TEXT
price_target_change_per cent	TEXT	"price_target_change_percent" TEXT
upside_to_target	REAL	"upside_to_target" REAL
<b>assets</b>		CREATE TABLE "assets" ( "symbol_ticker" TEXT, "name" TEXT, "asset_type" TEXT, "sector" TEXT, "category" TEXT, "is_pairs_candidate"

Name	Type	Schema
		INTEGER, "primary_pair" TEXT, "secondary_pair" TEXT, "avg_daily_volume_3m" TEXT, "avg_dollar_volume_3m" TEXT )
symbol_ticker	TEXT	"symbol_ticker" TEXT
name	TEXT	"name" TEXT
asset_type	TEXT	"asset_type" TEXT
sector	TEXT	"sector" TEXT
category	TEXT	"category" TEXT
is_pairs_candidate	INTEGER	"is_pairs_candidate" INTEGER
primary_pair	TEXT	"primary_pair" TEXT
secondary_pair	TEXT	"secondary_pair" TEXT
avg_daily_volume_3m	TEXT	"avg_daily_volume_3m" TEXT
avg_dollar_volume_3m	TEXT	"avg_dollar_volume_3m" TEXT
<b>correlation_analysis</b>		CREATE TABLE "correlation_analysis" ( "asset_1" TEXT, "asset_2" TEXT, "calculation_date" TEXT, "correlation_30d" REAL, "correlation_90d" REAL, "correlation_180d" REAL, "correlation_stability" REAL, "directional_correlation_upside" REAL, "directional_correlation_downside" REAL, "volatility_correlation" REAL, "sample_size" INTEGER )
asset_1	TEXT	"asset_1" TEXT
asset_2	TEXT	"asset_2" TEXT
calculation_date	TEXT	"calculation_date" TEXT
correlation_30d	REAL	"correlation_30d" REAL
correlation_90d	REAL	"correlation_90d" REAL

Name	Type	Schema
correlation_180d	REAL	"correlation_180d" REAL
correlation_stability	REAL	"correlation_stability" REAL
directional_correlation_upside	REAL	"directional_correlation_upside" REAL
directional_correlation_downside	REAL	"directional_correlation_downside" REAL
volatility_correlation	REAL	"volatility_correlation" REAL
sample_size	INTEGER	"sample_size" INTEGER
<b>earnings_data</b>		CREATE TABLE "earnings_data" ( "symbol_ticker" TEXT, "earnings_date" TEXT, "is_confirmed" INTEGER, "reported_eps" REAL, "estimated_eps" REAL, "eps_surprise" REAL, "eps_surprise_percent" REAL, "reported_revenue" TEXT, "estimated_revenue" TEXT, "revenue_surprise" TEXT, "revenue_surprise_percent" TEXT, "guidance_raised" TEXT, "guidance_lowered" TEXT, "guidance_met" REAL, "beat_count_last_4q" TEXT, "avg_price_move_1d_historical" TEXT )
symbol_ticker	TEXT	"symbol_ticker" TEXT
earnings_date	TEXT	"earnings_date" TEXT
is_confirmed	INTEGER	"is_confirmed" INTEGER
reported_eps	REAL	"reported_eps" REAL
estimated_eps	REAL	"estimated_eps" REAL
eps_surprise	REAL	"eps_surprise" REAL
eps_surprise_percent	REAL	"eps_surprise_percent" REAL
reported_revenue	TEXT	"reported_revenue" TEXT

Name	Type	Schema
estimated_revenue	TEXT	"estimated_revenue" TEXT
revenue_surprise	TEXT	"revenue_surprise" TEXT
revenue_surprise_percent	TEXT	"revenue_surprise_percent" TEXT
guidance_raised	TEXT	"guidance_raised" TEXT
guidance_lowered	TEXT	"guidance_lowered" TEXT
guidance_met	REAL	"guidance_met" REAL
beat_count_last_4q	TEXT	"beat_count_last_4q" TEXT
avg_price_move_1d_historical	TEXT	"avg_price_move_1d_historical" TEXT
<b>economic_indicators</b>		<pre> CREATE TABLE "economic_indicators" ( "indicator_date" TEXT, "vix" REAL, "vix_1m" REAL, "vix_3m" REAL, "vix_6m" REAL, "vix_change" REAL, "treasury_10y" REAL, "treasury_5y" REAL, "treasury_3m" REAL, "treasury_2y" REAL, "yield_curve_10y_2y" REAL, "yield_curve_10y_3m" REAL, "dollar_index" REAL, "gold_price" REAL, "oil_price" REAL, "copper_price" REAL, "sp500_close" REAL, "nasdaq_close" REAL, "dow_jones_close" REAL, "russell_2000_close" REAL, "sp500_volume" REAL, "dollar_index_change" REAL, "fed_funds_rate" REAL, "inflation_rate" REAL, "unemployment_rate" REAL, "gdp_growth" REAL, </pre>

Name	Type	Schema
		"consumer_confidence" REAL )
indicator_date	TEXT	"indicator_date" TEXT
vix	REAL	"vix" REAL
vix_1m	REAL	"vix_1m" REAL
vix_3m	REAL	"vix_3m" REAL
vix_6m	REAL	"vix_6m" REAL
vix_change	REAL	"vix_change" REAL
treasury_10y	REAL	"treasury_10y" REAL
treasury_5y	REAL	"treasury_5y" REAL
treasury_3m	REAL	"treasury_3m" REAL
treasury_2y	REAL	"treasury_2y" REAL
yield_curve_10y_2y	REAL	"yield_curve_10y_2y" REAL
yield_curve_10y_3m	REAL	"yield_curve_10y_3m" REAL
dollar_index	REAL	"dollar_index" REAL
gold_price	REAL	"gold_price" REAL
oil_price	REAL	"oil_price" REAL
copper_price	REAL	"copper_price" REAL
sp500_close	REAL	"sp500_close" REAL
nasdaq_close	REAL	"nasdaq_close" REAL
dow_jones_close	REAL	"dow_jones_close" REAL
russell_2000_close	REAL	"russell_2000_close" REAL
sp500_volume	REAL	"sp500_volume" REAL
dollar_index_change	REAL	"dollar_index_change" REAL
fed_funds_rate	REAL	"fed_funds_rate" REAL
inflation_rate	REAL	"inflation_rate" REAL
unemployment_rate	REAL	"unemployment_rate" REAL
gdp_growth	REAL	"gdp_growth" REAL
consumer_confidence	REAL	"consumer_confidence" REAL

Name	Type	Schema
<b>fundamental_data</b>		<pre> CREATE TABLE "fundamental_data" ( "symbol_ticker" TEXT, "fundamental_date" TEXT, "market_cap" INTEGER, "enterprise_value" REAL, "pe_ratio" REAL, "forward_pe" REAL, "peg_ratio" TEXT, "price_to_book" REAL, "price_to_sales" REAL, "ev_to_ebitda" REAL, "ev_to_revenue" REAL, "profit_margin" REAL, "operating_margin" REAL, "return_on_equity" REAL, "return_on_assets" REAL, "return_on_invested_capital" TEXT, "revenue" REAL, "revenue_growth" REAL, "earnings_growth" REAL, "earnings_per_share" REAL, "total_debt" REAL, "debt_to_equity" REAL, "current_ratio" REAL, "quick_ratio" REAL, "free_cash_flow" REAL, "beta" REAL, "dividend_yield" REAL, "payout_ratio" REAL, "short_interest" REAL, "short_ratio" REAL, "short_percent_float" REAL, "days_to_cover" TEXT, "shares_outstanding" INTEGER, "float_shares" REAL, "institutional_ownership" REAL ) </pre>
symbol_ticker	TEXT	"symbol_ticker" TEXT
fundamental_date	TEXT	"fundamental_date" TEXT

Name	Type	Schema
market_cap	INTEGER	"market_cap" INTEGER
enterprise_value	REAL	"enterprise_value" REAL
pe_ratio	REAL	"pe_ratio" REAL
forward_pe	REAL	"forward_pe" REAL
peg_ratio	TEXT	"peg_ratio" TEXT
price_to_book	REAL	"price_to_book" REAL
price_to_sales	REAL	"price_to_sales" REAL
ev_to_ebitda	REAL	"ev_to_ebitda" REAL
ev_to_revenue	REAL	"ev_to_revenue" REAL
profit_margin	REAL	"profit_margin" REAL
operating_margin	REAL	"operating_margin" REAL
return_on_equity	REAL	"return_on_equity" REAL
return_on_assets	REAL	"return_on_assets" REAL
return_on_invested_capital	TEXT	"return_on_invested_capital" TEXT
revenue	REAL	"revenue" REAL
revenue_growth	REAL	"revenue_growth" REAL
earnings_growth	REAL	"earnings_growth" REAL
earnings_per_share	REAL	"earnings_per_share" REAL
total_debt	REAL	"total_debt" REAL
debt_to_equity	REAL	"debt_to_equity" REAL
current_ratio	REAL	"current_ratio" REAL
quick_ratio	REAL	"quick_ratio" REAL
free_cash_flow	REAL	"free_cash_flow" REAL
beta	REAL	"beta" REAL
dividend_yield	REAL	"dividend_yield" REAL
payout_ratio	REAL	"payout_ratio" REAL
short_interest	REAL	"short_interest" REAL
short_ratio	REAL	"short_ratio" REAL

Name	Type	Schema
short_percent_float	REAL	"short_percent_float" REAL
days_to_cover	TEXT	"days_to_cover" TEXT
shares_outstanding	INTEGER	"shares_outstanding" INTEGER
float_shares	REAL	"float_shares" REAL
institutional_ownership	REAL	"institutional_ownership" REAL
<b>insider_trading</b>		CREATE TABLE "insider_trading" ( "symbol_ticker" TEXT, "filing_date" TEXT, "transaction_date" TEXT, "insider_name" TEXT, "insider_title" TEXT, "is_director" INTEGER, "is_officer" INTEGER, "transaction_type" TEXT, "shares_traded" INTEGER, "price_per_share" REAL, "total_value" REAL, "shares_owned_after" INTEGER, "ownership_change_percent" REAL )
symbol_ticker	TEXT	"symbol_ticker" TEXT
filing_date	TEXT	"filing_date" TEXT
transaction_date	TEXT	"transaction_date" TEXT
insider_name	TEXT	"insider_name" TEXT
insider_title	TEXT	"insider_title" TEXT
is_director	INTEGER	"is_director" INTEGER
is_officer	INTEGER	"is_officer" INTEGER
transaction_type	TEXT	"transaction_type" TEXT
shares_traded	INTEGER	"shares_traded" INTEGER
price_per_share	REAL	"price_per_share" REAL
total_value	REAL	"total_value" REAL
shares_owned_after	INTEGER	"shares_owned_after" INTEGER



Name	Type	Schema
ownership_change_percent	REAL	"ownership_change_percent" REAL
<b>ml_features</b>		<pre> CREATE TABLE ml_features ( feature_id INTEGER PRIMARY KEY AUTOINCREMENT, symbol_ticker TEXT NOT NULL, feature_date DATE NOT NULL, -- Price returns return_1d REAL, return_5d REAL, return_20d REAL, -- Technical indicators rsi_14 REAL, macd REAL, macd_signal REAL, macd_histogram REAL, bb_upper REAL, bb_middle REAL, bb_lower REAL, bb_width REAL, bb_position REAL, -- Volatility features volatility_10d REAL, volatility_20d REAL, volatility_30d REAL, atr_14 REAL, volatility_regime TEXT, -- Sentiment features sentiment_score REAL, sentiment_ma_7d REAL, sentiment_price_divergence REAL, -- Lag features return_1d_lag1 REAL, return_1d_lag5 REAL, return_1d_lag20 REAL, rsi_14_lag1 REAL, volatility_20d_lag1 REAL, -- Normalized features (for ML) return_1d_norm REAL, rsi_14_norm REAL, macd_norm REAL, volatility_20d_norm REAL, sentiment_score_norm REAL, created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP, UNIQUE(symbol_ticker, </pre>

Name	Type	Schema
		feature_date) )
feature_id	INTEGER	"feature_id" INTEGER
symbol_ticker	TEXT	"symbol_ticker" TEXT NOT NULL
feature_date	DATE	"feature_date" DATE NOT NULL
return_1d	REAL	"return_1d" REAL
return_5d	REAL	"return_5d" REAL
return_20d	REAL	"return_20d" REAL
rsi_14	REAL	"rsi_14" REAL
macd	REAL	"macd" REAL
macd_signal	REAL	"macd_signal" REAL
macd_histogram	REAL	"macd_histogram" REAL
bb_upper	REAL	"bb_upper" REAL
bb_middle	REAL	"bb_middle" REAL
bb_lower	REAL	"bb_lower" REAL
bb_width	REAL	"bb_width" REAL
bb_position	REAL	"bb_position" REAL
volatility_10d	REAL	"volatility_10d" REAL
volatility_20d	REAL	"volatility_20d" REAL
volatility_30d	REAL	"volatility_30d" REAL
atr_14	REAL	"atr_14" REAL
volatility_regime	TEXT	"volatility_regime" TEXT
sentiment_score	REAL	"sentiment_score" REAL
sentiment_ma_7d	REAL	"sentiment_ma_7d" REAL
sentiment_price_divergence	REAL	"sentiment_price_divergence" REAL
return_1d_lag1	REAL	"return_1d_lag1" REAL
return_1d_lag5	REAL	"return_1d_lag5" REAL
return_1d_lag20	REAL	"return_1d_lag20" REAL
rsi_14_lag1	REAL	"rsi_14_lag1" REAL

Name	Type	Schema
volatility_20d_lag1	REAL	"volatility_20d_lag1" REAL
return_1d_norm	REAL	"return_1d_norm" REAL
rsi_14_norm	REAL	"rsi_14_norm" REAL
macd_norm	REAL	"macd_norm" REAL
volatility_20d_norm	REAL	"volatility_20d_norm" REAL
sentiment_score_norm	REAL	"sentiment_score_norm" REAL
created_at	TIMESTAMP	"created_at" TIMESTAMP DEFAULT CURRENT_TIMESTAMP
<b>news_events</b>		CREATE TABLE "news_events" ( "symbol_ticker" TEXT, "event_date" TEXT, "event_type" TEXT, "event_category" TEXT, "event_magnitude" REAL, "event_description" TEXT, "event_source" TEXT, "sentiment_score" REAL, "expected_impact" TEXT, "similar_historical_events" TEXT, "avg_price_reaction_historical" TEXT )
symbol_ticker	TEXT	"symbol_ticker" TEXT
event_date	TEXT	"event_date" TEXT
event_type	TEXT	"event_type" TEXT
event_category	TEXT	"event_category" TEXT
event_magnitude	REAL	"event_magnitude" REAL
event_description	TEXT	"event_description" TEXT
event_source	TEXT	"event_source" TEXT
sentiment_score	REAL	"sentiment_score" REAL
expected_impact	TEXT	"expected_impact" TEXT
similar_historical_events	TEXT	"similar_historical_events" TEXT

Name	Type	Schema
avg_price_reaction_historical	TEXT	"avg_price_reaction_historical" TEXT
<b>options_data</b>		CREATE TABLE "options_data" ( "symbol_ticker" TEXT, "options_date" TEXT, "implied_volatility_30d" REAL, "implied_volatility_60d" REAL, "implied_volatility_90d" REAL, "iv_rank_1y" TEXT, "iv_percentile_1y" REAL, "iv_rank_3y" TEXT, "iv_percentile_3y" REAL, "hv_iv_spread" TEXT, "put_call_ratio" REAL, "put_call_ratio_volume" REAL, "put_call_ratio_oi" REAL, "put_volume" INTEGER, "call_volume" REAL, "total_options_volume" REAL, "put_oi" INTEGER, "call_oi" INTEGER, "put_call_oi_ratio" REAL, "atm_iv" REAL, "skew_25delta" REAL, "iv_term_structure_slope" REAL )
symbol_ticker	TEXT	"symbol_ticker" TEXT
options_date	TEXT	"options_date" TEXT
implied_volatility_30d	REAL	"implied_volatility_30d" REAL
implied_volatility_60d	REAL	"implied_volatility_60d" REAL
implied_volatility_90d	REAL	"implied_volatility_90d" REAL
iv_rank_1y	TEXT	"iv_rank_1y" TEXT
iv_percentile_1y	REAL	"iv_percentile_1y" REAL
iv_rank_3y	TEXT	"iv_rank_3y" TEXT

Name	Type	Schema
iv_percentile_3y	REAL	"iv_percentile_3y" REAL
hv_iv_spread	TEXT	"hv_iv_spread" TEXT
put_call_ratio	REAL	"put_call_ratio" REAL
put_call_ratio_volume	REAL	"put_call_ratio_volume" REAL
put_call_ratio_oi	REAL	"put_call_ratio_oi" REAL
put_volume	INTEGER	"put_volume" INTEGER
call_volume	REAL	"call_volume" REAL
total_options_volume	REAL	"total_options_volume" REAL
put_oi	INTEGER	"put_oi" INTEGER
call_oi	INTEGER	"call_oi" INTEGER
put_call_oi_ratio	REAL	"put_call_oi_ratio" REAL
atm_iv	REAL	"atm_iv" REAL
skew_25delta	REAL	"skew_25delta" REAL
iv_term_structure_slope	REAL	"iv_term_structure_slope" REAL
<b>pairs_statistics</b>		<pre>CREATE TABLE "pairs_statistics" ( "stat_date" TEXT, "symbol_ticker_1" TEXT, "symbol_ticker_2" TEXT, "cointegration_score" REAL, "cointegration_pvalue" REAL, "hedge_ratio" REAL, "spread" REAL, "spread_mean_60d" REAL, "spread_std_60d" REAL, "spread_percentile" REAL, "spread_zscore" REAL, "spread_volatility_20d" REAL, "spread_momentum_5d" REAL, "spread_acceleration" REAL, "half_life_mean_reversion" REAL, "reversion_count_60d" INTEGER, "days_since_last_reversion" TEXT, "spread_direction"</pre>

Name	Type	Schema
		TEXT, "spread_extreme_flag" INTEGER, "entry_signal" TEXT )
stat_date	TEXT	"stat_date" TEXT
symbol_ticker_1	TEXT	"symbol_ticker_1" TEXT
symbol_ticker_2	TEXT	"symbol_ticker_2" TEXT
cointegration_score	REAL	"cointegration_score" REAL
cointegration_pvalue	REAL	"cointegration_pvalue" REAL
hedge_ratio	REAL	"hedge_ratio" REAL
spread	REAL	"spread" REAL
spread_mean_60d	REAL	"spread_mean_60d" REAL
spread_std_60d	REAL	"spread_std_60d" REAL
spread_percentile	REAL	"spread_percentile" REAL
spread_zscore	REAL	"spread_zscore" REAL
spread_volatility_20d	REAL	"spread_volatility_20d" REAL
spread_momentum_5d	REAL	"spread_momentum_5d" REAL
spread_acceleration	REAL	"spread_acceleration" REAL
half_life_mean_reversion	REAL	"half_life_mean_reversion" REAL
reversion_count_60d	INTEGER	"reversion_count_60d" INTEGER
days_since_last_reversion	TEXT	"days_since_last_reversion" TEXT
spread_direction	TEXT	"spread_direction" TEXT
spread_extreme_flag	INTEGER	"spread_extreme_flag" INTEGER
entry_signal	TEXT	"entry_signal" TEXT
<b>paper_trading_performance</b>		CREATE TABLE paper_trading_performance ( performance_id INTEGER PRIMARY KEY AUTOINCREMENT, performance_date TEXT NOT NULL, total_capital REAL NOT NULL, open_positions_count

Name	Type	Schema
		INTEGER NOT NULL, closed_positions_count INTEGER NOT NULL, daily_pnl REAL, cumulative_pnl REAL, win_rate REAL, sharpe_ratio REAL, max_drawdown REAL, created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP )
performance_id	INTEGER	"performance_id" INTEGER
performance_date	TEXT	"performance_date" TEXT NOT NULL
total_capital	REAL	"total_capital" REAL NOT NULL
open_positions_count	INTEGER	"open_positions_count" INTEGER NOT NULL
closed_positions_count	INTEGER	"closed_positions_count" INTEGER NOT NULL
daily_pnl	REAL	"daily_pnl" REAL
cumulative_pnl	REAL	"cumulative_pnl" REAL
win_rate	REAL	"win_rate" REAL
sharpe_ratio	REAL	"sharpe_ratio" REAL
max_drawdown	REAL	"max_drawdown" REAL
created_at	TIMESTAMP	"created_at" TIMESTAMP DEFAULT CURRENT_TIMESTAMP
<b>paper_trading_</b> <b>positions</b>		CREATE TABLE paper_trading_positions ( position_id INTEGER PRIMARY KEY AUTOINCREMENT, symbol_ticker_1 TEXT NOT NULL, symbol_ticker_2 TEXT NOT NULL, position_type TEXT NOT NULL, entry_date TEXT NOT NULL, entry_z_score REAL, entry_price_1 REAL NOT NULL, entry_price_2 REAL NOT NULL, shares_1 INTEGER NOT NULL,

Name	Type	Schema
		shares_2 INTEGER NOT NULL, capital_allocated REAL NOT NULL, hedge_ratio REAL, status TEXT NOT NULL, exit_date TEXT, exit_z_score REAL, exit_price_1 REAL, exit_price_2 REAL, realized_pnl REAL, exit_reason TEXT, created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP )
position_id	INTEGER	"position_id" INTEGER
symbol_ticker_1	TEXT	"symbol_ticker_1" TEXT NOT NULL
symbol_ticker_2	TEXT	"symbol_ticker_2" TEXT NOT NULL
position_type	TEXT	"position_type" TEXT NOT NULL
entry_date	TEXT	"entry_date" TEXT NOT NULL
entry_z_score	REAL	"entry_z_score" REAL
entry_price_1	REAL	"entry_price_1" REAL NOT NULL
entry_price_2	REAL	"entry_price_2" REAL NOT NULL
shares_1	INTEGER	"shares_1" INTEGER NOT NULL
shares_2	INTEGER	"shares_2" INTEGER NOT NULL
capital_allocated	REAL	"capital_allocated" REAL NOT NULL
hedge_ratio	REAL	"hedge_ratio" REAL
status	TEXT	"status" TEXT NOT NULL
exit_date	TEXT	"exit_date" TEXT
exit_z_score	REAL	"exit_z_score" REAL
exit_price_1	REAL	"exit_price_1" REAL
exit_price_2	REAL	"exit_price_2" REAL
realized_pnl	REAL	"realized_pnl" REAL
exit_reason	TEXT	"exit_reason" TEXT
created_at	TIMESTAMP	"created_at" TIMESTAMP DEFAULT



Name	Type	Schema
		CURRENT_TIMESTAMP
<b>performance_metrics</b>		<pre>CREATE TABLE performance_metrics ( id INTEGER PRIMARY KEY AUTOINCREMENT, metric_date TEXT NOT NULL, strategy_type TEXT, symbol_ticker TEXT, total_trades INTEGER, winning_trades INTEGER, losing_trades INTEGER, win_rate REAL, total_return REAL, avg_return_per_trade REAL, median_return_per_trade REAL, best_trade REAL, worst_trade REAL, avg_win REAL, avg_loss REAL, profit_factor REAL, total_pnl REAL, cumulative_return REAL, sharpe_ratio REAL, sortino_ratio REAL, calmar_ratio REAL, max_drawdown REAL, max_drawdown_duration INTEGER, current_drawdown REAL, volatility REAL, downside_deviation REAL, var_95 REAL, cvar_95 REAL, avg_holding_period REAL, prediction_accuracy REAL, directional_accuracy REAL, mae REAL, rmse REAL, created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP )</pre>
id	INTEGER	"id" INTEGER
metric_date	TEXT	"metric_date" TEXT NOT NULL
strategy_type	TEXT	"strategy_type" TEXT
symbol_ticker	TEXT	"symbol_ticker" TEXT

Name	Type	Schema
total_trades	INTEGER	"total_trades" INTEGER
winning_trades	INTEGER	"winning_trades" INTEGER
losing_trades	INTEGER	"losing_trades" INTEGER
win_rate	REAL	"win_rate" REAL
total_return	REAL	"total_return" REAL
avg_return_per_trade	REAL	"avg_return_per_trade" REAL
median_return_per_trade	REAL	"median_return_per_trade" REAL
best_trade	REAL	"best_trade" REAL
worst_trade	REAL	"worst_trade" REAL
avg_win	REAL	"avg_win" REAL
avg_loss	REAL	"avg_loss" REAL
profit_factor	REAL	"profit_factor" REAL
total_pnl	REAL	"total_pnl" REAL
cumulative_return	REAL	"cumulative_return" REAL
sharpe_ratio	REAL	"sharpe_ratio" REAL
sortino_ratio	REAL	"sortino_ratio" REAL
calmar_ratio	REAL	"calmar_ratio" REAL
max_drawdown	REAL	"max_drawdown" REAL
max_drawdown_duration	INTEGER	"max_drawdown_duration" INTEGER
current_drawdown	REAL	"current_drawdown" REAL
volatility	REAL	"volatility" REAL
downside_deviation	REAL	"downside_deviation" REAL
var_95	REAL	"var_95" REAL
cvar_95	REAL	"cvar_95" REAL
avg_holding_period	REAL	"avg_holding_period" REAL
prediction_accuracy	REAL	"prediction_accuracy" REAL
directional_accuracy	REAL	"directional_accuracy" REAL
mae	REAL	"mae" REAL

Name	Type	Schema
rmse	REAL	"rmse" REAL
created_at	TIMESTAMP	"created_at" TIMESTAMP DEFAULT CURRENT_TIMESTAMP
<b>raw_price_data</b>		CREATE TABLE "raw_price_data" ( "symbol_ticker" TEXT, "price_date" TEXT, "open" REAL, "high" REAL, "low" REAL, "close" REAL, "volume" REAL, "adj_close" REAL, "dollar_volume" REAL, "trades_count" INTEGER )
symbol_ticker	TEXT	"symbol_ticker" TEXT
price_date	TEXT	"price_date" TEXT
open	REAL	"open" REAL
high	REAL	"high" REAL
low	REAL	"low" REAL
close	REAL	"close" REAL
volume	REAL	"volume" REAL
adj_close	REAL	"adj_close" REAL
dollar_volume	REAL	"dollar_volume" REAL
trades_count	INTEGER	"trades_count" INTEGER
<b>relative_valuation</b>		CREATE TABLE relative_valuation ( id INTEGER PRIMARY KEY AUTOINCREMENT, valuation_date TEXT NOT NULL, symbol_ticker_1 TEXT NOT NULL, symbol_ticker_2 TEXT NOT NULL, pe_ratio_relative REAL, pb_ratio_relative REAL, ps_ratio_relative REAL, ev_ebitda_relative REAL, profit_margin_relative REAL, roe_relative REAL,

Name	Type	Schema
		revenue_growth_relative REAL, beta_relative REAL, volatility_relative REAL, market_cap_ratio REAL, volume_ratio REAL, liquidity_divergence_score REAL, valuation_spread_percentile REAL, created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP, UNIQUE(valuation_date, symbol_ticker_1, symbol_ticker_2) )
id	INTEGER	"id" INTEGER
valuation_date	TEXT	"valuation_date" TEXT NOT NULL
symbol_ticker_1	TEXT	"symbol_ticker_1" TEXT NOT NULL
symbol_ticker_2	TEXT	"symbol_ticker_2" TEXT NOT NULL
pe_ratio_relative	REAL	"pe_ratio_relative" REAL
pb_ratio_relative	REAL	"pb_ratio_relative" REAL
ps_ratio_relative	REAL	"ps_ratio_relative" REAL
ev_ebitda_relative	REAL	"ev_ebitda_relative" REAL
profit_margin_relative	REAL	"profit_margin_relative" REAL
roe_relative	REAL	"roe_relative" REAL
revenue_growth_relative	REAL	"revenue_growth_relative" REAL
beta_relative	REAL	"beta_relative" REAL
volatility_relative	REAL	"volatility_relative" REAL
market_cap_ratio	REAL	"market_cap_ratio" REAL
volume_ratio	REAL	"volume_ratio" REAL
liquidity_divergence_score	REAL	"liquidity_divergence_score" REAL
valuation_spread_percentile	REAL	"valuation_spread_percentile" REAL

Name	Type	Schema
created_at	TIMESTAMP	"created_at" TIMESTAMP DEFAULT CURRENT_TIMESTAMP
<b>sentiment_data</b>		CREATE TABLE "sentiment_data" ( "symbol_ticker" TEXT, "sentiment_date" TEXT, "source" TEXT, "sentiment_score" REAL, "sentiment_magnitude" REAL, "mention_count" INTEGER, "positive_mentions" INTEGER, "negative_mentions" INTEGER, "neutral_mentions" INTEGER, "engagement_score" REAL, "virality_score" REAL, "sentiment_direction" TEXT, "sentiment_momentum_3d" TEXT, "sentiment_acceleration" TEXT, "price_sentiment_divergence" TEXT, "sample_headlines" TEXT )
symbol_ticker	TEXT	"symbol_ticker" TEXT
sentiment_date	TEXT	"sentiment_date" TEXT
source	TEXT	"source" TEXT
sentiment_score	REAL	"sentiment_score" REAL
sentiment_magnitude	REAL	"sentiment_magnitude" REAL
mention_count	INTEGER	"mention_count" INTEGER
positive_mentions	INTEGER	"positive_mentions" INTEGER
negative_mentions	INTEGER	"negative_mentions" INTEGER
neutral_mentions	INTEGER	"neutral_mentions" INTEGER
engagement_score	REAL	"engagement_score" REAL
virality_score	REAL	"virality_score" REAL
sentiment_direction	TEXT	"sentiment_direction" TEXT
sentiment_momentum_3	TEXT	"sentiment_momentum_3d" TEXT

Name	Type	Schema
d		
sentiment_acceleration	TEXT	"sentiment_acceleration" TEXT
price_sentiment_divergence	TEXT	"price_sentiment_divergence" TEXT
sample_headlines	TEXT	"sample_headlines" TEXT
<b>sqlite_sequence</b>		CREATE TABLE sqlite_sequence(name,seq)
name		"name"
seq		"seq"
<b>technical_indicators</b>		CREATE TABLE "technical_indicators" ( "symbol_ticker" TEXT, "indicator_date" TEXT, "sma_10" REAL, "sma_20" REAL, "sma_50" REAL, "sma_200" REAL, "ema_12" REAL, "ema_26" REAL, "rsi_14" REAL, "rsi_7" REAL, "macd" REAL, "macd_signal" REAL, "macd_histogram" REAL, "stochastic_k" REAL, "stochastic_d" REAL, "bb_upper" REAL, "bb_middle" REAL, "bb_lower" REAL, "bb_width" REAL, "bb_percent" REAL, "atr_14" REAL, "atr_20" REAL, "adx_14" REAL, "plus_di" REAL, "minus_di" REAL, "obv" REAL, "volume_sma_20" REAL, "volume_ratio" REAL, "price_distance_to_sma_50" REAL, "price_distance_to_sma_200" REAL, "price_momentum_5d" REAL, "price_momentum_20d"

Name	Type	Schema
		REAL, "price_momentum_60d" REAL )
symbol_ticker	TEXT	"symbol_ticker" TEXT
indicator_date	TEXT	"indicator_date" TEXT
sma_10	REAL	"sma_10" REAL
sma_20	REAL	"sma_20" REAL
sma_50	REAL	"sma_50" REAL
sma_200	REAL	"sma_200" REAL
ema_12	REAL	"ema_12" REAL
ema_26	REAL	"ema_26" REAL
rsi_14	REAL	"rsi_14" REAL
rsi_7	REAL	"rsi_7" REAL
macd	REAL	"macd" REAL
macd_signal	REAL	"macd_signal" REAL
macd_histogram	REAL	"macd_histogram" REAL
stochastic_k	REAL	"stochastic_k" REAL
stochastic_d	REAL	"stochastic_d" REAL
bb_upper	REAL	"bb_upper" REAL
bb_middle	REAL	"bb_middle" REAL
bb_lower	REAL	"bb_lower" REAL
bb_width	REAL	"bb_width" REAL
bb_percent	REAL	"bb_percent" REAL
atr_14	REAL	"atr_14" REAL
atr_20	REAL	"atr_20" REAL
adx_14	REAL	"adx_14" REAL
plus_di	REAL	"plus_di" REAL
minus_di	REAL	"minus_di" REAL
obv	REAL	"obv" REAL
volume_sma_20	REAL	"volume_sma_20" REAL

Name	Type	Schema
volume_ratio	REAL	"volume_ratio" REAL
price_distance_to_sma_50	REAL	"price_distance_to_sma_50" REAL
price_distance_to_sma_200	REAL	"price_distance_to_sma_200" REAL
price_momentum_5d	REAL	"price_momentum_5d" REAL
price_momentum_20d	REAL	"price_momentum_20d" REAL
price_momentum_60d	REAL	"price_momentum_60d" REAL
<b>trades</b>		<pre>CREATE TABLE trades ( trade_id INTEGER PRIMARY KEY AUTOINCREMENT, signal_id INTEGER, symbol_ticker TEXT NOT NULL, strategy_type TEXT NOT NULL, entry_date TEXT NOT NULL, entry_price REAL NOT NULL, shares REAL NOT NULL, entry_cost REAL, exit_date TEXT, exit_price REAL, exit_proceeds REAL, pnl REAL, pnl_percent REAL, holding_days INTEGER, max_gain_percent REAL, max_loss_percent REAL, max_adverse_excursion REAL, max_favorable_excursion REAL, trade_status TEXT, exit_reason TEXT, pair_ticker TEXT, notes TEXT, created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP, FOREIGN KEY (signal_id) REFERENCES trading_signals(signal_id) )</pre>
trade_id	INTEGER	"trade_id" INTEGER
signal_id	INTEGER	"signal_id" INTEGER
symbol_ticker	TEXT	"symbol_ticker" TEXT NOT NULL



Name	Type	Schema
strategy_type	TEXT	"strategy_type" TEXT NOT NULL
entry_date	TEXT	"entry_date" TEXT NOT NULL
entry_price	REAL	"entry_price" REAL NOT NULL
shares	REAL	"shares" REAL NOT NULL
entry_cost	REAL	"entry_cost" REAL
exit_date	TEXT	"exit_date" TEXT
exit_price	REAL	"exit_price" REAL
exit_proceeds	REAL	"exit_proceeds" REAL
pnl	REAL	"pnl" REAL
pnl_percent	REAL	"pnl_percent" REAL
holding_days	INTEGER	"holding_days" INTEGER
max_gain_percent	REAL	"max_gain_percent" REAL
max_loss_percent	REAL	"max_loss_percent" REAL
max_adverse_excursion	REAL	"max_adverse_excursion" REAL
max_favorable_excursion	REAL	"max_favorable_excursion" REAL
trade_status	TEXT	"trade_status" TEXT
exit_reason	TEXT	"exit_reason" TEXT
pair_ticker	TEXT	"pair_ticker" TEXT
notes	TEXT	"notes" TEXT
created_at	TIMESTAMP	"created_at" TIMESTAMP DEFAULT CURRENT_TIMESTAMP
<b>trading_signals</b>		CREATE TABLE trading_signals ( signal_id INTEGER PRIMARY KEY AUTOINCREMENT, symbol_ticker TEXT NOT NULL, signal_date TEXT NOT NULL, strategy_type TEXT NOT NULL, signal_type TEXT NOT NULL, confidence REAL, entry_price REAL, target_price REAL, stop_loss REAL,

Name	Type	Schema
		expected_return REAL, expected_holding_days INTEGER, risk_reward_ratio REAL, recommended_position_size REAL, position_sizing_reason TEXT, signal_strength_score REAL, conviction_level TEXT, primary_signal_driver TEXT, top_contributing_features TEXT, pair_ticker TEXT, model_version TEXT, created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP )
signal_id	INTEGER	"signal_id" INTEGER
symbol_ticker	TEXT	"symbol_ticker" TEXT NOT NULL
signal_date	TEXT	"signal_date" TEXT NOT NULL
strategy_type	TEXT	"strategy_type" TEXT NOT NULL
signal_type	TEXT	"signal_type" TEXT NOT NULL
confidence	REAL	"confidence" REAL
entry_price	REAL	"entry_price" REAL
target_price	REAL	"target_price" REAL
stop_loss	REAL	"stop_loss" REAL
expected_return	REAL	"expected_return" REAL
expected_holding_days	INTEGER	"expected_holding_days" INTEGER
risk_reward_ratio	REAL	"risk_reward_ratio" REAL
recommended_position_size	REAL	"recommended_position_size" REAL
position_sizing_reason	TEXT	"position_sizing_reason" TEXT
signal_strength_score	REAL	"signal_strength_score" REAL
conviction_level	TEXT	"conviction_level" TEXT
primary_signal_driver	TEXT	"primary_signal_driver" TEXT

Name	Type	Schema
top_contributing_features	TEXT	"top_contributing_features" TEXT
pair_ticker	TEXT	"pair_ticker" TEXT
model_version	TEXT	"model_version" TEXT
created_at	TIMESTAMP	"created_at" TIMESTAMP DEFAULT CURRENT_TIMESTAMP
<b>vix_term_structure</b>		CREATE TABLE vix_term_structure ( id INTEGER PRIMARY KEY AUTOINCREMENT, structure_date TEXT NOT NULL UNIQUE, vix_spot REAL, vix_front_month REAL, vix_second_month REAL, vix_third_month REAL, term_structure_slope REAL, contango_backwardation TEXT, contango_magnitude REAL, term_structure_steepness REAL, created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP )
id	INTEGER	"id" INTEGER
structure_date	TEXT	"structure_date" TEXT NOT NULL UNIQUE
vix_spot	REAL	"vix_spot" REAL
vix_front_month	REAL	"vix_front_month" REAL
vix_second_month	REAL	"vix_second_month" REAL
vix_third_month	REAL	"vix_third_month" REAL
term_structure_slope	REAL	"term_structure_slope" REAL
contango_backwardation	TEXT	"contango_backwardation" TEXT
contango_magnitude	REAL	"contango_magnitude" REAL
term_structure_steepness	REAL	"term_structure_steepness" REAL

Name	Type	Schema
created_at	TIMESTAMP	"created_at" TIMESTAMP DEFAULT CURRENT_TIMESTAMP
<b>volatility_metrics</b>		<pre> CREATE TABLE "volatility_metrics" ( "symbol_ticker" TEXT, "vol_date" TEXT, "close_to_close_vol_10d" REAL, "close_to_close_vol_20d" REAL, "close_to_close_vol_60d" REAL, "parkinson_vol_10d" REAL, "parkinson_vol_20d" REAL, "garman_klass_vol_10d" REAL, "garman_klass_vol_20d" REAL, "rogers_satchell_vol_10d" REAL, "rogers_satchell_vol_20d" REAL, "yang_zhang_vol_10d" REAL, "yang_zhang_vol_20d" REAL, "realized_vol_percentile_1y" REAL, "realized_vol_percentile_3y" REAL, "volatility_of_volatility_20d" " REAL, "vol_clustering_index" REAL, "volatility_trend" TEXT, "volatility_acceleration" REAL, "volume_weighted_volatility" REAL, "abnormal_volume_count_20d" REAL, "gap_frequency_60d" REAL, "avg_gap_size_60d" REAL, "gap_volatility_contribution" </pre>

Name	Type	Schema
		REAL, "overnight_vol_ratio" REAL, "intraday_vol_ratio" REAL )
symbol_ticker	TEXT	"symbol_ticker" TEXT
vol_date	TEXT	"vol_date" TEXT
close_to_close_vol_10d	REAL	"close_to_close_vol_10d" REAL
close_to_close_vol_20d	REAL	"close_to_close_vol_20d" REAL
close_to_close_vol_60d	REAL	"close_to_close_vol_60d" REAL
parkinson_vol_10d	REAL	"parkinson_vol_10d" REAL
parkinson_vol_20d	REAL	"parkinson_vol_20d" REAL
garman_klass_vol_10d	REAL	"garman_klass_vol_10d" REAL
garman_klass_vol_20d	REAL	"garman_klass_vol_20d" REAL
rogers_satchell_vol_10d	REAL	"rogers_satchell_vol_10d" REAL
rogers_satchell_vol_20d	REAL	"rogers_satchell_vol_20d" REAL
yang_zhang_vol_10d	REAL	"yang_zhang_vol_10d" REAL
yang_zhang_vol_20d	REAL	"yang_zhang_vol_20d" REAL
realized_vol_percentile_1y	REAL	"realized_vol_percentile_1y" REAL
realized_vol_percentile_3y	REAL	"realized_vol_percentile_3y" REAL
volatility_of_volatility_20d	REAL	"volatility_of_volatility_20d" REAL
vol_clustering_index	REAL	"vol_clustering_index" REAL
volatility_trend	TEXT	"volatility_trend" TEXT
volatility_acceleration	REAL	"volatility_acceleration" REAL
volume_weighted_volatility	REAL	"volume_weighted_volatility" REAL
abnormal_volume_count_20d	REAL	"abnormal_volume_count_20d" REAL
gap_frequency_60d	REAL	"gap_frequency_60d" REAL
avg_gap_size_60d	REAL	"avg_gap_size_60d" REAL

Name	Type	Schema
gap_volatility_contribution	REAL	"gap_volatility_contribution" REAL
overnight_vol_ratio	REAL	"overnight_vol_ratio" REAL
intraday_vol_ratio	REAL	"intraday_vol_ratio" REAL
<b>volatility_regimes</b>		<pre> CREATE TABLE volatility_regimes ( id INTEGER PRIMARY KEY AUTOINCREMENT, regime_date TEXT NOT NULL UNIQUE, current_regime TEXT, regime_confidence REAL, low_vol_threshold REAL, medium_vol_threshold REAL, high_vol_threshold REAL, days_in_current_regime INTEGER, regime_persistence_score REAL, transition_probability_low REAL, transition_probability_medium REAL, transition_probability_high REAL, volatility_expansion_rate REAL, volatility_contraction_rate REAL, market_stress_level REAL, volatility_contagion_index REAL, created_at TIMESTAMP DEFAULT CURRENT_TIMESTAMP ) </pre>
id	INTEGER	"id" INTEGER
regime_date	TEXT	"regime_date" TEXT NOT NULL UNIQUE
current_regime	TEXT	"current_regime" TEXT

Name	Type	Schema
regime_confidence	REAL	"regime_confidence" REAL
low_vol_threshold	REAL	"low_vol_threshold" REAL
medium_vol_threshold	REAL	"medium_vol_threshold" REAL
high_vol_threshold	REAL	"high_vol_threshold" REAL
days_in_current_regime	INTEGER	"days_in_current_regime" INTEGER
regime_persistence_score	REAL	"regime_persistence_score" REAL
transition_probability_low	REAL	"transition_probability_low" REAL
transition_probability_medium	REAL	"transition_probability_medium" REAL
transition_probability_high	REAL	"transition_probability_high" REAL
volatility_expansion_rate	REAL	"volatility_expansion_rate" REAL
volatility_contraction_rate	REAL	"volatility_contraction_rate" REAL
market_stress_level	REAL	"market_stress_level" REAL
volatility_contagion_index	REAL	"volatility_contagion_index" REAL
created_at	TIMESTAMP	"created_at" TIMESTAMP DEFAULT CURRENT_TIMESTAMP

## Indices (6)

Name	Type	Schema
<b>idx_performance_date_strategy</b>		CREATE INDEX idx_performance_date_strategy ON performance_metrics(metric_date, strategy_type)
metric_date		"metric_date"
strategy_type		"strategy_type"
<b>idx_relative_val_date_symbols</b>		CREATE INDEX idx_relative_val_date_symbols ON relative_valuation(valuation_date, symbol_ticker_1, symbol_ticker_2)

Name	Type	Schema
valuation_date		"valuation_date"
symbol_ticker_1		"symbol_ticker_1"
symbol_ticker_2		"symbol_ticker_2"
<b>idx_signals_symbol_date_strategy</b>		CREATE INDEX idx_signals_symbol_date_strategy ON trading_signals(symbol_ticker, signal_date, strategy_type)
symbol_ticker		"symbol_ticker"
signal_date		"signal_date"
strategy_type		"strategy_type"
<b>idx_trades_symbol_strategy_status</b>		CREATE INDEX idx_trades_symbol_strategy_status ON trades(symbol_ticker, strategy_type, trade_status)
symbol_ticker		"symbol_ticker"
strategy_type		"strategy_type"
trade_status		"trade_status"
<b>idx_vix_structure_date</b>		CREATE INDEX idx_vix_structure_date ON vix_term_structure(structure_date)
structure_date		"structure_date"
<b>idx_vol_regime_date</b>		CREATE INDEX idx_vol_regime_date ON volatility_regimes(regime_date)
regime_date		"regime_date"

## Views (0)

Name	Type	Schema
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## Triggers (0)



Name	Type	Schema
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