**Renaissance Technologies LLC** (also known as RenTech or RenTec) is an American hedge fund based in East Setauket, New York, on Long Island, which specializes in systematic trading using quantitative models derived from mathematical and statistical analysis. Their signature Medallion fund is famed for the best record in investing history. Renaissance was founded in 1982 by James Simons,

Renaissance's flagship Medallion fund, which is run mostly for fund employees, is famous for the best track record on Wall Street, returning more than 66 percent annualized before fees and 39 percent after fees over a 30-year span from 1988 to 2018.Renaissance offers two portfolios to outside investors—Renaissance Institutional Equities Fund (RIEF) and Renaissance Institutional Diversified Alpha (RIDA).

Renaissance established its most profitable fund, the Medallion fund (previously the Limroy Colombian fund), which used an expanded form of Leonard Baum's mathematical models improved by algebraist James Ax to explore correlations from which they could profit

The **Medallion fund** is considered to be one of the most successful hedge funds ever. From 1994 through mid-2014, it averaged a 71.8% annual return, before fees.The fund has been closed to outside investors since 1993 and is available only to current and past employees and their families. The firm bought out the last investor in the Medallion fund in 2005 and the investor community has not seen its returns since then. About 100 of Renaissance's some 275 employees are "qualified purchasers", meaning they generally have at least $5 million in assets to invest. The remaining are "accredited investors", generally worth at least $1 million.
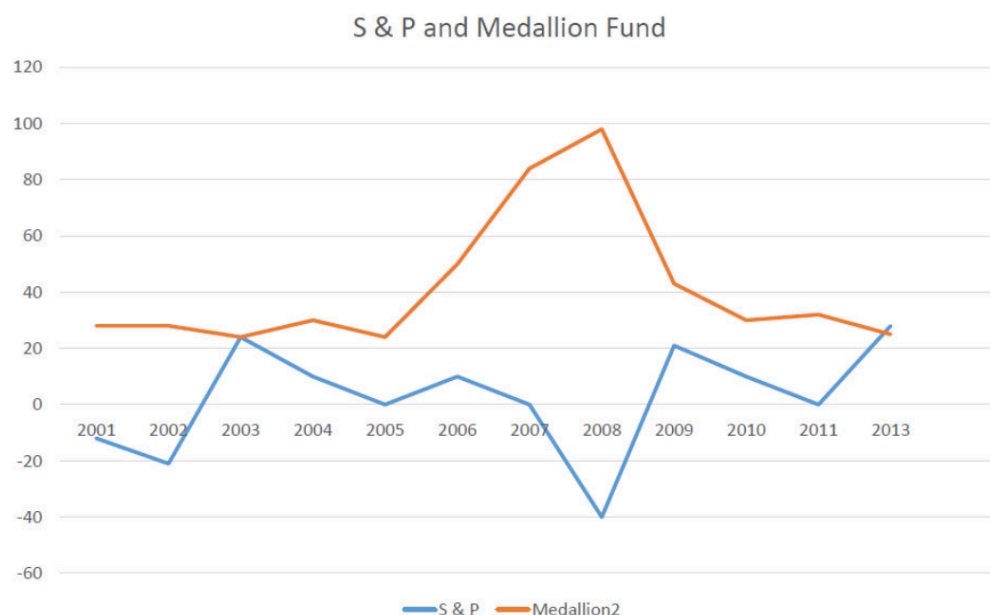
Factors Definition

- Start & End: The start and end dates of the backtest.
- Duration: Total time period of the backtest.
- Exposure Time [%]: Percentage of time capital was actively invested.
- Equity Final [$]: Portfolio value at the end of the backtest.
- Equity Peak [$]: Highest portfolio value during the backtest.
- Return [%]: Total percentage return over the backtest period.
- Buy & Hold Return [%]: Return if capital was held without trading.
- Return (Ann.) [%]: Annualized return of the strategy.
- Volatility (Ann.) [%]: Annualized standard deviation of returns.
- Sharpe Ratio: Risk-adjusted return relative to volatility.
- Sortino Ratio: Risk-adjusted return, penalizing downside risk only.
- Calmar Ratio: Risk-adjusted return relative to maximum drawdown.
- Max. Drawdown [%]: Largest percentage portfolio drop during the period.
- Avg. Drawdown [%]: Average percentage drop from peak during drawdowns.
- Max. Drawdown Duration: Longest time taken to recover from a drawdown.
- Avg. Drawdown Duration: Average time taken to recover from drawdowns.
- # Trades: Total number of trades executed.
- Win Rate [%]: Percentage of profitable trades.
- Best Trade [%]: Highest return from a single trade.
- Worst Trade [%]: Largest loss from a single trade.
- Avg. Trade [%]: Average return per trade.
- Max. Trade Duration: Longest duration of a single trade.
- Avg. Trade Duration: Average duration of trades.
- Profit Factor: Ratio of gross profits to gross losses.
- Expectancy [%]: Average percentage return per trade.
- SQN: System Quality Number, measuring strategy performance.
- Kelly Criterion: Optimal bet size for maximizing returns (not provided here).