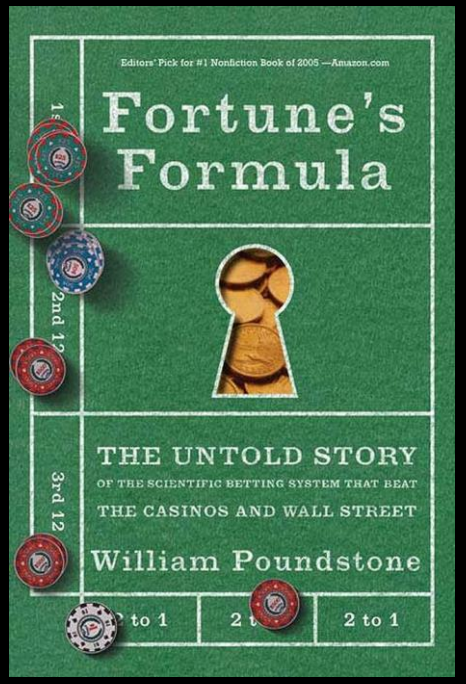
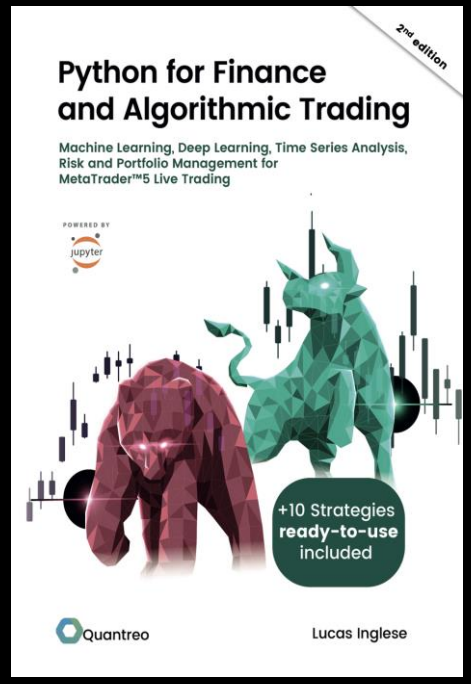
Hands On!
Algorithmic Trading 101

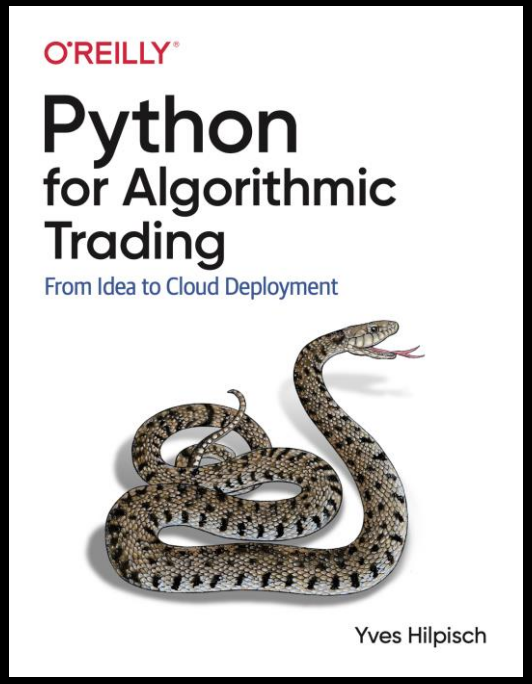
@oddskid



Kelly Criterion p. 232



Read this to get started with ML applied to trading



Ch03 & Ch04

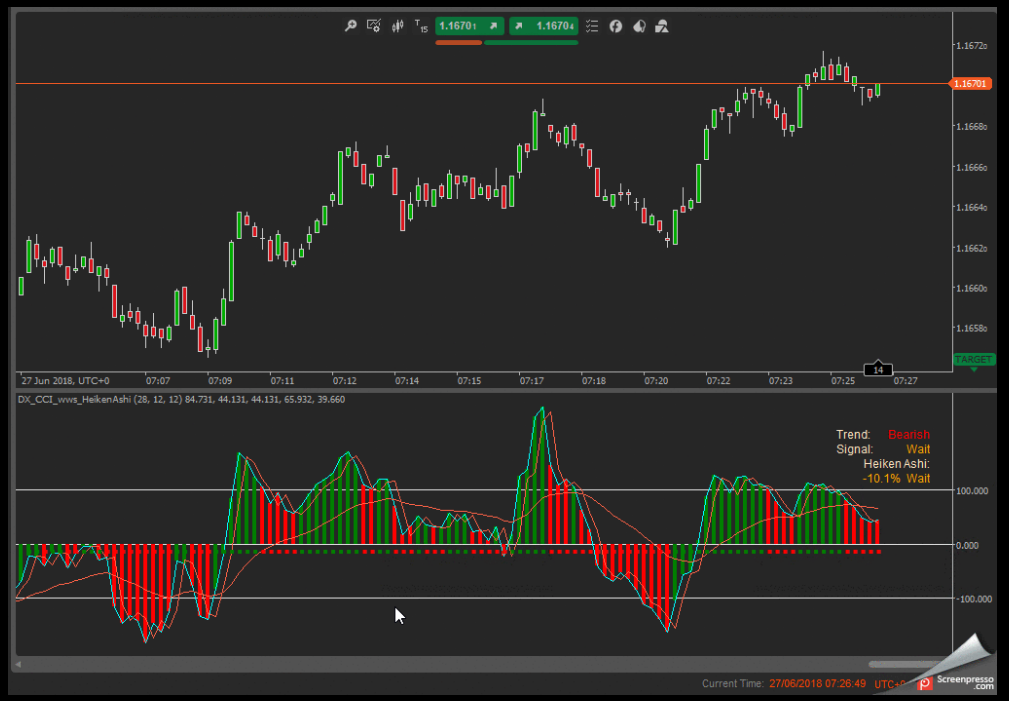
What is Algo Trading?

Algorithmic trading refers to the use of computer algorithms (scripts) to automate the process of trading financial instruments.

Why Algo Trade?

Advantages of Algorithmic Trading

- Speed: Execute trades faster than human traders.
- Accuracy: Minimize human errors and emotions.
- Backtesting: Test strategies on historical data.
- Diversification: Easily implement and manage multiple strategies simultaneously.

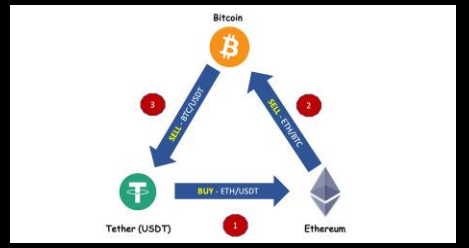


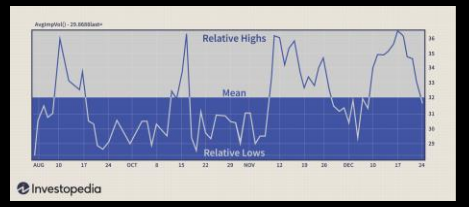
Components of Algorithmic Trading

- **Key Components**
  - **Algorithm**: The set of rules defining the trading strategy.
  - **Data Feed**: Real-time market data to inform trading decisions.
  - **Execution System**: Converts algorithmic signals into actual trades.
  - **Risk Management**: Controls to mitigate potential losses.

Common Algorithmic Trading Strategies

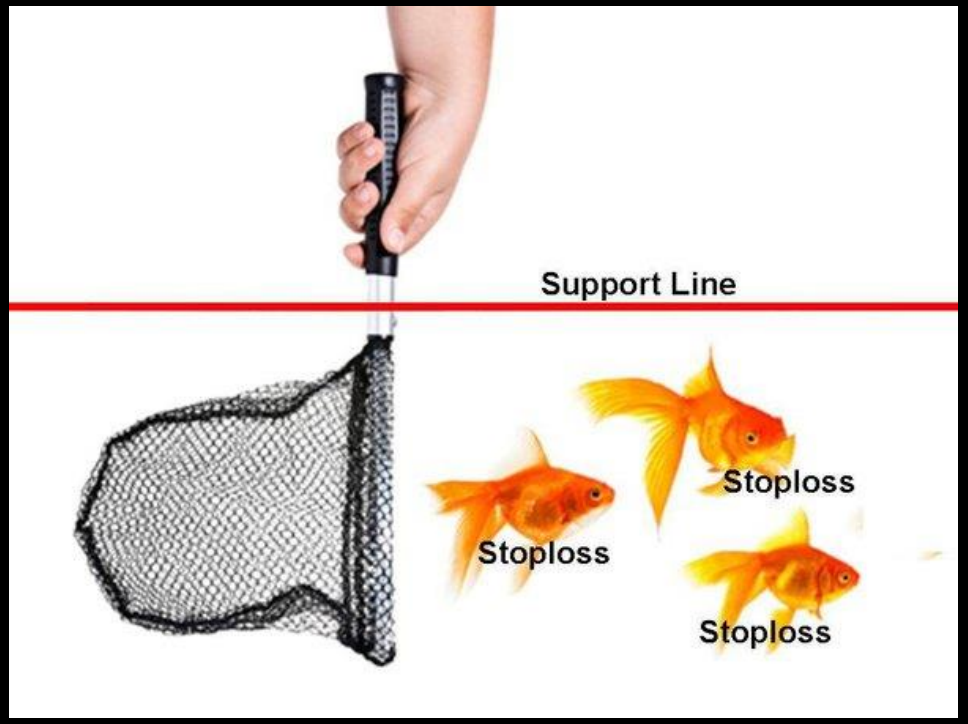
- **Trend Following**: Capitalizes on directional price movements.
- **Mean Reversion**: Assumes prices will revert to a historical average.
- **Arbitrage**: Exploits price differences in different markets or assets.
- **Machine Learning Strategies**: Use AI techniques for decision-making.





Risks and Challenges

- **Technical Risks**: System failures, connectivity issues.
- **Market Risks**: Unforeseen market events impacting strategies.
- **Regulatory Risks**: Compliance with financial regulations.
- **Over-Optimization**: Excessive fine-tuning leading to poor real-world performance.
- MANIPULATION



TIME TO CODE

FORK

https://github.com/carlosarturoceron/algo-trading-101