AI in trading: An analytical tool to help us make educated guesses about the DIRECTION of the market...

- WHAT IS THE GOAL OF THE FORECASTING??

- What questions do we want to answer? Or what do we want to improve from current process?

- Forecasting over what time range? And at what granularity?

- What are the best metrics for you to be able to use

**EXAMPLES goals:**

* **Minimizing risk or volatility or potential losses in a specific company’s metal bids**
* **Maximizing returns?**
* **How to spread out investments to minimize the prices changing as a result of your high volume purchase**
* **Determining overall direction/signal of the stock movement**
* **Determining early warning signs of large price drops of increases**

*Strategy considerations:*

* *How much money to spend on each asset? (At what price? At what volume? When and for how long?*
* *When do we spend this money?*
* *What risk constraints to impose?*
* *Are there shorts and longs?*

Option 1: Using only the time series data and focusing on manipulating it in model optimization and feature engineering to create portfolio analysis and analysis of risk factors and returns.

PROS: more specific to actual sourcing strategies

CONS: will need more collaboration with others to build constraints based system and trading/sourcing strategy // will need to know more about the market

Option 2: Machine Learning - to make loose predictions on either direction/movement/fluctuation of market (and also specific prices under constraints based systems)

PROS: Is more flexible of an approach. Has lower expectations and more room for creative uses/interpretations.

CONS: Not as specific.

* Sharpe ratio
* Pyfolio- Portfolio Analysis - Backtesting –
  + Analyses of how to distribute money across stocks in a basket (ie how much money to invest on each stock? In a way that minimizes both risk and returns. )
* also can consider volatility and RISK FACTORS
* ! RETURNS is difference divided by starting price
* adjusted risk
* Neural Networks are quite popular in tnraining because they can learn complex functions
  + ARIMA
* Volatility is the measure of the spread
* Autoregressive means the current value is based on the previous - a general metric to evaluate variance in returns
* Evaluating signals