- Algorithms
    - Look at general trends for the past 5 years
        - Ex: Apple releases a new iphone every June, so stock prices increase every june 8, etc.
        - Look at current trends
    - Only look past the economic recession in 2008
    - Issues
        - Price kept increasing...
            - Exponentially started increasing
        - How to exclude any data outliers
            - Ex: The price radically shot up; uncharacteristic of the typical stock
        - Somehow incorporate the GDP and any other indicators of an economy
            - Larger GDP, more stock market growth
                - GDP Smooth curve, stock market isn't
                - Derivative of the GDP (Change in slope)
                - When GDP has radical rate of growth slower than normal, stock market "corrects" itself and prices go down
                - Have an algorithm that accounts of all externalities
                    - Brexit, terrorist attacks, weakening of the EU
            - Ex: when the stock market shot up before the recession, would there have been a way to have know that it wasn't sustainable?
                - Compare stock market to historical P/E ratios (price earning)
                    - Was typically 12-14 but when increased to 17-18, it's more dangerous
                - "Herd mentality"
        - How do I account for inflation, interest rates, etc.
            - Inflation doesn't have a trackable trend; don't incorporate it
            - If people think FED will make a change, stock markets responded dramatically
            - FED Attacks unemployment & inflation
                - If Markets expectations FED easing of monetary policy
            - FED raises rates over a shorter time span than the market
            - Unemployment has a limit
    - Factors
        - Work Productivity:
            - GDP divided by the number of hours worked
            - Productivity refers to the resources available to the workers
        - Change weight of indicators based off of events