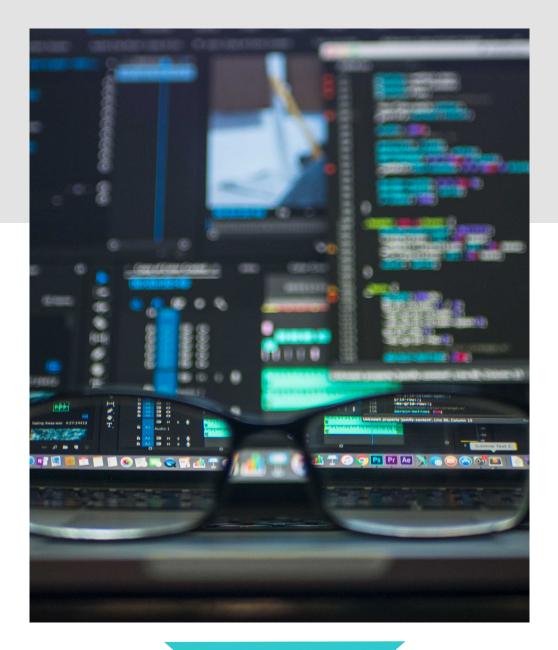
### TOP 5 WAYS CODERS CAN SUCCEED IN TRADING



### quantprogram

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# 1. EFFICIENT BACKTESTING

A coders strength is to code ideas and backtest them. But finding and coding strategies and only checking it on stocks that you know might make the result look good but its efficacy is always questionable. Most coders only check the results for the past x years in famous stocks like Apple, Tesla, Google and Microsoft. These are high performing stocks for the past x years and the results in expected to be good. The way to solve this problem is to check it over a basket of stocks. Examples being the basket of stocks in S&P 500, Nasdaq 100, Russel 1000 or Nifty 50. Not understanding the concept of survivorship bias is also a big red flag. Many of the coders don't realize that certain stocks was delisted or just put in the S&P 500 list recently. An example being Tesla. Backtesting all the stocks in S&P 500 universe today will lead to skewed result as many of these stocks didn't exist in the S&P 500 before. Making sure to code effectively by factoring this concern is necessary before you give your stratgey a go ahead.

# 2. START TO THINK LIKE A TRADER

The biggest advantage for traders is that the moment they think about a strategy they can figure out the weakness and strengths of that specific strategy. How will it perform during recessionary periods and also how it performs during the rallies. Many of the hedge funds use multiple strategies at the same time so they get good results regardless of the market scenario. In the course we will discuss which strategies work during high volatile and choppy periods and which strategies work during rallies. With an addition to certain filters we are also able to shut down strategies during certain periods. This idea or filter is not an opinion created by Youtube Gurus but created based on statistical and historical results and how it improved the performance over the years. The way a trader analyzes past performance is also crucial. Interpreting factors like drawdowns, maximum favorable excursion, maximum adverse excursion and profit/loss distribution can help you tweak your strategy in such a way as to improve your performance.



## 3. APPLY SOLID RISK MANAGMENT

Good risk management doesnt simply mean good risk to reward ratio. This has been widely discussed out there in social media. Position sizing is the least discussed and probably the most important. If I put 50% on 1 stock and another 50% in another I'm in the mercy of the performance of the stock. However if i take 100 stocks and invest 1% in each not only am I reducing my risk but also giving exposure to certain stocks that go 100-1000% in a few months. This will give you amazing returns year after year and your downside will be protected as well. Construction of an ideal portfolio based on position sizing is crucial but the strategy you create should also be backtested with position sizing over 10,000+ stocks over 25+ years. In our course we code strategies over basket of stocks with efficient postion sizing and see whether it works over 30 years. Unless we are happy with the results we dont go ahead with the strategy. The module on how to think like a mathematician focuses completely on how to improve results of you trading based on changes in position sizing over certain products

# 4. OPTIMIZE AND IMPROVE

The biggest mistake that coders do is essentially they backtest their strategy that best fits the past x years. The becomes a big problem as its not certain that it will perform well the next x years. This essentially is called curve fitting. Our courses specifically train you to choose the ideal data set for backtest and the data set which is independent of the back tested data to run the test. This solves the problem of curvefitting and you can be confident in executing your backtested strategy. Traders also don't optimize the variables that they use for the entries and exits. By avoiding this they are missing a substantial edge and improvement in the results. We will be discussing this along with Monte carlo simulations to create random trade sequences and how we can apply this to find how efficient your back tested strategy is.



### 5. FIND QUALITY DATA

Free data always comes with a price and that can affect your backtested result. Many of the data has been adjusted accordingly by data sources. This small errors might be insignificant as the errors in daily high/low and close/open are only minor but the calculations in other indicators like moving average or RSI will also turn out to be different. When we backtest over 30 odd years the entry/exit signals from backtesting one data source might not be an entry/exit signal on the other data source. Also the amount of trades done backtesting 100's of stocks can skew the results to a massive extent. We have seen results change from a to even 50% over certain times.

Quant Alpha(India) (\$125 -Rs 9078 appx) Quant (\$345)

Quant Alpha(Global) Prometheus(Global) (\$399)

Thinking like a trader **Diversify, Win rates, Drawdowns** Thinking like a mathematician **Position Sizing, Money management** Thinking like a coder Crash course coding **Tradingview Amibroker Best Platforms to Backtest** Thinking like a Quant

Trend following, Mean reversion MAE, MFE, Profit distribution Optimization, Walk Forward Improve variables 5 successful strategies for Indian stocks **Example to trade US ETF & Stocks** 

> 2 examples of Optimization & Walkforward **Codes Attached**

All contents In Alpha(India) 5 US strategies that beat market

All contents In Alpha(US) 8 US strategies that beat market **Monte Carlo Simulation** 4 examples of Monte Carlo **Pairs Trading Efficient Portfolio Diversification** 



### FAQ'S

#### 1. How is this course different from other trading courses?

Most of the other trading courses give you an illusion of making money. Their idea is to sell "Do this and you will make a profit." They will also show charts and tape on when it was profitable and conveniently avoid showing the loss scenarios as much as possible. There is no proof of their trading strategy success as its not backtested. All our trading systems has been back tested with high quality paid data over 27 years. The strategies that we code go through black swan events like pandemic, global financial crisis and the dot com bubble. Stress tests are also performed on these strategies by using Monte Carlo simulations. We also show the proof of the performance that you yourself can see and back test. The goal of the course is not just in using these strategies but to teach you how to create better efficient strategies yourself. You will learn how to tweak certain variables to get better results.

#### 2. How is this course different from other quant courses?

Most of the other quant trading courses conveniently avoid multiple black swan events and just focus on backtesting past 10 years. Our strategies go back the past 27 years with 3 major black swan events. Those courses also form biases in their stock selection, ie backtesting on stocks that performed well in their strategy. Our stock portfolio selection in Prometheus course is randomly selected with one of them doing 20000+ trades. We also teach how to do optimization and walk forward along with Monte Carlo simulation to add randomness to our trades.

#### 3. Why do we need to backtest our trading strategy?

Back testing help you analyze the efficacy of your strategy. Without back testing trading is as equal to gambling. Its like building a house without a plan. With a plan and proper engineering principles you get to build a solid house with solid foundation that lasts for years. Back testing does the same thing. It analyzes your strategy and shows how it performed during multiple worse case scenarios. It analyzes your returns and worst drawdowns and shows it right on your screen whether this has worked and whether the strategy survived. This gives you confidence to use the strategy and to be prepared if in case there is a stock market crash.

#### 4. Why don't we see much quantitative traders in social media?

Quantitative traders are generally successful in trading and is either making money themselves or working for hedge funds. They don't have the time or intention to make youtube videos or post things on Instagram. To be a good quant trader itself is hard as its a combination of math, coding and trading skills. Not everyone has the dedication to achieve skills in all 3 fields. Some people have the skill in one field but heir lack of understanding in another field handicaps them in being a quant. This is the main reason why quants are one of the highest paid professions in the financial industry. The course is designed to achieve a solid base to understand and integrate these 3 skills efficiently and be a successful quant. Once you achieve these skills you can either apply to your own trading or work in hedge funds or create your own fund.



#### 5. What programming language's are used?

The codes are done in both Tradingview and Amibroker. However the additional 3 of the strategies applied in stocks for the Prometheus package can't be done in Tradingview as they do not have the facility to do portfolio back testing by position sizing the stocks. The strategy can only be tested individually in each product one by one in Tradingview. Amibroker however has the built in systems to do the above.

#### 6. Why is the coding not done in Python?

Python requires extensive coding and there's no built in system to analyze and execute as seen in Tradingview and Amibroker. Even though there is backtrader in python it still requires extensive coding. Amibroker has built in function that allow Monter carlo simulation, Optimization and Walk forward analysis. It also takes care of delisted securities which gives us accurate result. We will have to manually code all these features in Python which is time consuming and prone to errors. One of the main goals for quants is is to focus more on improving strategy and analysis with minimal coding.

#### 7. What is Optimization?

Lets say you want to buy a stock when the 50 day moving average crosses the 100 day moving average. You see it has worked in few stocks and you believe it can be applied. Optimization does a range of tests over lots of data and lets you know that the best variables instead and 50 and 100 days. For instance, after the test they will tell you that 60 day crossing the 75 day has gives better returns with lower draw-downs in the past 30 years as compared to the 50 and 100. This helps you improve your idea. But walk forward tests has to be further done to avoid curvefitting.

#### 8. Are these strategies day trades?

No, all the strategies discussed are for overnight positions. However there is one strategy in Prometheus package where we might get out the same day before the close if the rules apply. Its not that strategies cannot be created for day trading but the result cannot be trusted as day trading goes through tremendous amounts of slippage(ability to get in and out at the expected price) and it adds up due to multiple trades a single day. This skews our data results and the efficacy of the results cannot be relied. When the slippage is added for years this adds significant cost to our results, not to mentions the huge commissions incurred. There are multiple studies which show why day traders do not succeed. The reason can be simplified to a combination of few main points that involve, leverage, commissions, slippage and psychology. In fact there has never been a discretionary day trader in the Forbes list. However the best performing hedge fund of all time Renaissance Technologies relies on systematic trading based on mean reversion. Our course has 3 mean reversion systems(2 ETF, 1 stocks) which produced spectacular results over the past 27 years. We have also done Monte Carlo simulation(Prometheus) to judge its efficacy and performance.



#### 9. What data do you use?

We use highly premium paid data from Norgate Data. In order to get accurate results we need accurate data. Most of the free data are unreliable and does not take into factor situations like stock splits. They also merge data and round numbers. We have shown examples of these in the course. All the codes and strategies tested with the results shown are from Norgate Data.

10. Do you disuses and give examples for Optimization, Walk forward and Monte Carlo simulation?

Yes, we do discuss examples for Optimization and Walk forward. However the Monte carlo simulation discussion is only on Prometheus package. Please note that tradingview doesnt have this facility. So if you wish to apply these in your strategy you should have Amibroker. All the strategies in basic package can be applied in Tradingview.

11. Do you gives the codes for all the strategies in the course?

Yes we do.

12. Why is Prometheus the most expensive?

Prometheus includes additional discussion on Pairs trading, Monte Carlo simulations and idal portfolio diversification. There are barely enough reliable sources on application of these topics online. These methodologies can be applied to any universe of stock sanywhere in the world, These methodologies highly focused strategies in big quant funds. We discuss on what kind of market pairs trade can be done along with fundamental view and time frame horizons. We also discuss how one our strategies can be applied in a pair as an example with great returns. There is also discussion about creating an efficient portfolio with trend following, mean reversion and pairs trading strategies.

13. Which ETF are the strategies backtested and can it be applied in other ETF's?

The strategies applied are in SPY ETF. This is because its the most liquid index ETF out there. It should work well in most of the other index based ETF's. But, there is no guarantee that it will work in all other ETF's as different ETF's have different behaviors like GLD and USO. You can only come to conclusion by backtesting each individually. This essentially is the biggest strength of backtesting. Some ETF's respond better to mean reversion while some trend following seems to work. We have discussed efficiently on how to identify and overcome these situations in the course.



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#### 14. How about for stocks? Which specific stocks did you backtest on?

We didn't backtest on any specific stock because as quants it's silly to expect what will be the next Tesla or Microsoft. Hence we create a portfolio of random stocks in either S&P 500 universe or Russel 3000 and position size it. In one of our strategies for Alpha, 90 stock positions were taken at one time with 1% capital per stock. So we are well diversified. Then we back test the past 25+ years, getting in and out based on the rules. We also take into consideration the issue of delisted securities so we get perfect accurate results. Our dependence is on the strategy and risk management not on picking the right stock. Our codes are designed to randomly choose stocks if the rules agree. This gives us more accurate result of the efficacy of our strategy as its backtested over a larger subset than just a single stock like Tesla. We also discuss how to position size on stocks efficiently based on strategies in the Prometheus course.

#### 15. Are these strategies backtested in Indian Markets?

The 5 strategies in Alpha(India) has been backtested in 15 indian stocks in the Nifty 50 ranked by market cap with spectacular results. The package also tests in US stocks and SPY ETF as SEBI now allows Indian residents to invest in US stocks. This opens up a great opportunity for Indians to expose themselves to returns of great companies abroad. The Prometheus package takes the stocks from Russel 3000 and also S&P 500 Universe. The selection of stocks is randomly done over the past 27+years and hence these strategies can be applied to any stocks around the world and still should yield decent returns. The application of Monte Carlo simulation will be a massive eye opener into how amazing quants can get in creating efficient strategies by adding randomness to the equation.

#### 16. Do you provide Amibroker?

No we do not provide Amibroker. Unless you plan on doing methodologies like Monte Carlo, Walkforward or Optimization, Amibroker wont be necessary. We have coded all the strategies in Tradingview as well, except for the additional 3 strategies in Prometheus. Those methodologies require Amibroker. However if you plan on taking your quantitative skills to the next level, investing in Amibroker is a wise bet.

