Project Proposal and Presentation  
TE 401: Developing Breakthrough Projects

Syho2

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1. What is the problem space you are working in?

o What is the problem space landscape?

People invest to earn passive income, but there is a high risk associated with investing due to the fluctuating prices of stocks. Furthermore, it is time-consuming for individuals to monitor the stock market every second in search of the best buying and selling times.

o Who are the relevant stakeholders?

The relevant stakeholders are the trading platforms.

o What is the global and local context that you are working within?

Cryptocurrency trading is a global trend, and this project deals with the global context of quantitative trading, as economies are highly interconnected.

o \*What more do you need to know about the problem space?

I might need more information about the actual strategies and the challenges people may encounter when buying or selling cryptocurrency. Additionally, I would like to explore the ratio at which people would be willing to invest their money in more stable financial derivatives compared to high-risk day trading.

1. What is your idea?

o Why did you select this idea?

My brother’s friend told me this kind of funding rate arbitrage, and we discussed that I can use my profession in computer engineering to build a trading bot for it.

o Why is this an innovative idea to the problem?

There are lots of types of innovative idea, and I am currently doing a project that uses a new strategy.

o What is your ultimate vision for this idea?

Build a investment service company that can help people invest.

o \*What more do you need to know about the validity of your idea?

I might need to know the related law about trading with robots and also need to know about the tax issue of cryptocurrency trading.

1. \*Where are you headed?

o What are your main goals for the semester?

My main goal for the semester is to build a quant trading service using funding rate arbitrage of cryptocurrency based on the Binance Testnet API.

o What might your three breakthroughs be this semester (remember, these are your main deliverables that you want to create!)?

1. Trading Bot

- Test the function of price accessing on the test net

- Test the function of buying and selling on the test net

2. Arbitrage signal

- Find an arbitrage transaction signal

- Backtest the transaction signal

3. Combination

- Test the arbitrage trading strategy on the test net

o What are you unsure about with your idea?

am not sure whether the Binance API can enable me to execute funding rate arbitrage, specifically buying short or long of a future and a spot.

1. What steps will you take to implement?

o What resources do you need?

Hardware: Laptop

Software: VPN, Binance API

Connection: Another company that will use quant trading bot

o What do you need to do before people can use your idea?

I need to verify the performance of the trading bot. I will also need to understand the applicable laws.

o What team members do you need?

Currently, none.

o Who might be able to help you?

People who know how to build a machine learning model.