Financial Technology

HW1: Trading Valley Strategy Design

Deadline: 2022/10/18

Grading Policy:

1. In the programing assignment, the code(**.ipynb**), test data and report(**.pdf**) should be compressed into a **ZIP** file and upload to eeclass website. Also, please write a Readme file to explain how to run your code and discuss characteristics in your report.

2. The programming language that can be used on this assignment is Python. Built-in libraries or functions are allowed to use. Please integrate all your code to a main file. You should have executed it and kept the result.

3. According to the question requirement, the result should be contained in your **report**. Completeness of responses will affect your score (Explanation, Process, Results, and Discussion)

4. 30% off for late submission within one week, not accepted after one week.

5. Discussions are encouraged, **but plagiarism is strictly prohibited.**

Problem:

Design a strategy which makes the maximum profit and high sharp ratio.

Condition:

1. The test data is from “2022/01/01” to “2022/09/30”. The training data includes all data except the test data.
2. Choose 1 score to be the feature.
3. Only considering the long position.
4. The initial asset is 100000$, all-in on every trade.
5. The fee is ignored.

Question:

1. What’s your strategy to decide the entry and the exit?
2. How’s your strategy’s performance? Including profit, sharp ratio and asset change chart.

Data source and sample:
https://honey-scraper-952.notion.site/Growin-Public-API-38decd3c089f40cdbadd5fb54bc4cd80