CISC5352 Artificial Intelligence in Fintech Quiz (1) [1]

[1]Please turn in your workable codes and corresponding running results.

Quantify HFT trading and OTM data (30 points)

- Summarize singular value decomposition (SVD) and its possible applications in fintech (10 points)
- The folder fintech_quiz_1.zip contains an opion OTM data and 4 large-cap HFT datasets from four sectors IT, bank, retail and fashion. Each HFT dataset consists of 5850 observations across 9 variables
  - APPL.
  - BAC
  - WMT
  - AEO.

1. Visualize data with any methods you like
2. Compute the variance concentration ratios of data and visualize it
3. Compare the variance concentration ratios of the normalized data of the data by using different normalization methods
4. Apply 1,2,3 to *at least your own two datasets in finance*
5. What are your conclusions? why?

What should you turn in?

- 1. A folder that contains
  - A ppt to show details of your analytics (at MOST 20 pages)
  - your data
  - source files
  - corresponding related output.
- 2. Send the zipped file (.zip instead of ,rar) of your folder to Blackboard before the DUE