Group

Main goal: Get to know the company's development status, degree of policy impact and ESG strategy changes in recent years

Data: 10-k of fiscal year 2022, 2023 and 2024.

1. How is Fluence's expansion process? For example, get to know the changes in installed capacity and compare them with industry changes.

2. Understanding the contents of a company's 10-K through a new perspective on Python strings. Perform Named Entity Recognition (NER) on three years of 10-K, and use the library tool to find out the keywords of legal entities, organizational entities, corporate business entities, ESG entities and risk factors.

3. Find positive and negative messages in company's development. Use the library tool to do word frequency analysis and sentiment analysis.

4. Understand the changes in the company's ESG strategy over the past three years. Count the frequency and proportion of ESG keywords that appear in the 10-K each year to see which issues have risen/fallen most significantly. For ESG-related paragraphs or sentences, classify the sentiment or opinion to examine whether the company is actively promoting or passively complying.

5. Explore the impact of IRA policy factors on the company. Check the frequency of mentions of IRA and related keywords in 10-K in the past three years, and determine the risk/opportunity sentiment of the act, and conduct time series analysis to see if there are changes year by year.

Use NLP tools like Spacy or LLMs like GPT to analyze your proposed questions.

Note: While you are *not required* to use any auxiliary data, you are free to do so, if it suits your needs.

Deliverables:
(a) PowerPoint presentation (20 min)

(b) Code (Python or ipynb files)

(c) A report that has enough detail that the reader can reproduce your work