EDGAR-ANALYZER

Sub-Theme: Financial Products using Gen AI

Presented by: HashBrown

Archishman VB
Jugal Kothari
Prerana Kulkarni

PROBLEM STATEMENT

- SEC 10-K* forms are an important source of information for financial analysts and investors when making decisions about companies. These **lengthy and complicated documents** often include important details about the risks, operational strategies, and financial health of a company.
- Nevertheless, it **takes a lot of experience and time to extract valuable insights from these forms.**
- A **method that can automate this process is desperately needed** in order to improve its accessibility and comprehension for a larger audience.

*SEC 10-K forms are comprehensive annual reports filed by publicly traded companies to the U.S. Securities and Exchange Commission (SEC).
Yes, SEC 10-K forms are publicly available. You can access them on the SEC's EDGAR (Electronic Data Gathering, Analysis, and Retrieval) database at www.sec.gov/edgar.

SOLUTION

Our suggested method uses GenAI to automatically extract and summarize important data from SEC 10-K forms. The framework will :-

1. **Automate Collection**: SEC 10-K paperwork from corporate filings are automatically downloaded.
2. **Preprocess Data**: To find important data points and sections within the documents, preprocess the data using Natural Language Processing (NLP) techniques.
3. **Generate Insights:** To produce comprehensible insights, summaries, and visualizations, feed the preprocessed data into a Large Language Model (LLM).

Automating the collection of the forms mainly involves writing a script or using a web-scraping tool to download the documents. The GenAI Solution addresses the remaining two parts of the framework.
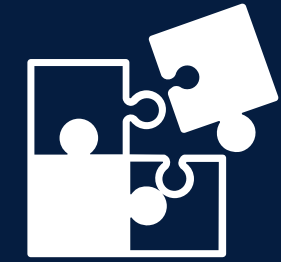
BUSINESS AND SOCIETAL IMPACT

Business Impact

- **Efficiency:** Cut down on the time and resources needed for financial analysis substantially.
- **Accessibility:** Increase retail investors' access to financial knowledge to facilitate well-informed decision-making.
- **Competitive Edge:** Give financial organizations a tool that improves their client offerings and analytical capacities.

Societal Impact

- **Financial Literacy:** Raise your level of financial literacy by making complex financial facts easily understood.
- **Transparency:** Increase business transparency by giving the public greater access to significant financial data.
- **Inclusivity:** Encourage a larger group of people to engage in investing activities, hence fostering a more diverse financial ecosystem.

INNOVATIVE ASPECTS

1. Harnessing advanced NLP algorithms to preprocess and organize the extensive data found in SEC 10-K forms.
   - **Using NLP techniques, we can automatically identify and extract sections of the SEC 10-K form** that discuss risk factors. This structured data can then be categorized and tagged for easier analysis.

2. Leveraging cutting-edge Large Language Models to transform structured data into clear and actionable insights.
   - Once the key sections and data points are extracted from the preprocessing, a **GenAI model can be used to generate summaries and insights.**

INNOVATIVE ASPECTS 🧩

3. Putting the end-user experience front and center to make sure the insights produced are clearly comprehensible and useful.

- A dashboard could be designed to **filter insights based on specific metrics or time periods**, and the GenAI model could be used to provide tailored summaries accordingly.

4. Implementing real-time processing and updates to provide users with the most current information available.

- A **system could be set-up to continuously monitor the EDGAR database for new 10-k filings**. When a new form is available, the script downloads it, the NLP model preprocesses it, and the LLM generates updated insights.

Thank you