Project Charter: One-Page Summary

Project Description

Given a financial report, respond to queries from a user and conduct a dialogue to assist with and speed up investment decision-making.

Problem or Opportunity Statement

Develop an advanced Financial Question Answering system using the given datasets, to provide timely and accurate responses to queries based on financial reports enhancing the efficiency of investment decision-making.

Over 1 million financial documents are produced by listed companies across the globe for their shareholders. This wealth of information makes it challenging for any individual to go through and make an informed investment decision. A total of 100 trillion dollars are invested in the listed companies and over 10 million+trading decisions are made each day. By automating the extraction of key information from financial reports, the project significantly accelerates investment decision-making, leading to faster and more informed choices.

Critical To Quality Metrics

Accuracy: Ensure precise and reliable answers to financial queries.
Response Time: Provide timely responses to enhance decision-making speed.
ROUGE score: Ensure the responses are aptly constructed using ROUGE and BLEU scores to evaluate the response construction (not the numerical values)
User Experience: Evaluate the ease of providing data, asking questions and user-friendly interface for managing a dialogue and getting responses.

Domain specific Accuracy: Assess the system's ability to handle varying types of financial content and responding to complex language.

Dialogue Accuracy: Evaluate the ability of the system to provide responses to questions in context of the dialogue

Assumptions

The dataset adequately represents diverse range of financial question types and complexities and simulates financial dialogue.

Users input questions in clear and concise language relevant to financial analysis.

The system assumes a baseline understanding of financial concepts and terminology for the user.

Constraints/Dependencies

Computational Resources: The system's performance may be constrained by the available computational resources.

Data Availability: The success of the project relies on the quality and quantity of the dataset.

Regulatory Compliance: System must comply with financial regulations.

In Scope

The project involves implementing state-of-the-art Natural Language Processing (NLP) techniques to build a Financial Question Answering system. This includes training models on the given datasets, developing an intuitive user interface, and conducting thorough testing to ensure reliability. The scope extends to handling a variety of financial questions related to reports, statements, and market analysis, handling variations in questions & content.

- ☐ The system achieves a predetermined accuracy/performance metrics threshold (e.g., 90%) on a standardized test set that is comparable with other solutions available in the market on such performance metrics.
- \square Average response time for queries falls below the specified threshold .
- ☐ The UI allows for taking financial data and questions and displays answer those questions allowing for follow-up questions..
- ☐ The system can handle context and conversations and answer financial questions from a dialogue displaying understanding of domain specific nuances.
- effectively.

Benefits

Accelerated Decision-Making: Users can quickly extract relevant information from financial reports, reducing the time required for investment decision-making.

Improved Decision Accuracy: The system enhances decision accuracy by providing precise and reliable answers to complex financial queries.

Enhanced User Productivity: Users experience increased efficiency in information retrieval, allowing them to focus on strategic aspects of investment analysis. Knowledge Accessibility: The project promotes wider access to financial insights, catering to both seasoned professionals and those with limited financial expertise, fostering a more inclusive investment environment.

Budget (If applicable)

Funding Requirement: N/A