AI-Powered Financial Text Analysis: Automating Nonanswer Detection in Earnings Call Transcripts

Background

Financial analysts and investors heavily rely on earnings conference calls to assess a company's financial health, strategic direction, and market outlook. However, executives often provide nonanswers—vague, evasive, or indirect responses that lack substantive information. Identifying these nonanswers is critical for financial decision-making, investor confidence, and corporate transparency.

Traditionally, manual analysis by financial experts or rule-based NLP systems has been used to detect nonanswers. However, these approaches face several limitations:

- Manual reviews are time-intensive, subjective, and costly.
- Rule-based NLP struggles with varied linguistic styles and complex financial jargon.
- Scaling these methods is inefficient, making it difficult to process large volumes of transcripts effectively.

With advancements in Large Language Models (LLMs) like ChatGPT, there is an opportunity to automate and enhance financial text analysis. LLMs can provide more accurate and scalable solutions by leveraging deep contextual understanding, improving the detection of nonanswers in financial disclosures.

Problem Statement

A multinational financial consulting firm wants to improve its nonanswer detection in earnings call transcripts. Manual analysis is slow and costly, while rule-based NLP fails to adapt to different speaking styles, leading to misclassifications and unreliable financial insights. The firm needs an AI-driven solution that accurately detects evasive responses, scales across large datasets, and remains cost-effective. It must also ensure compliance by providing clear, unbiased, and explainable results. To achieve this, the consulting team will develop a customized LLM fine-tuned on earnings call data, benchmark its performance against traditional NLP, and design a scalable, cost-efficient deployment strategy.

Dataset:

The dataset has been attached to the case to train and evaluate the proposed LLM-based nonanswer detection system (Link)