B.TECH PROJECT - MINORS

PROJECT PROPOSAL

SEMANTIC SEARCH AND RECOMMENDATION ALGORITHM

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12 August 2024
Version: 01

EXECUTIVE SUMMARY

PROBLEM STATEMENT

The rise of big data has revolutionised industries by providing vast amounts of information, yet it has also introduced significant challenges. Among these challenges, efficient data retrieval from massive datasets, remains a critical issue. Traditional search algorithms are often inadequate when dealing with files that reach sizes of 150GB or more, resulting in significant delays and inefficiencies. This proposal presents a novel solution to this problem through the development of a machine learning-based **Semantic Search and Recommendation Algorithm**.

https://ieeexplore.ieee.org/document/6693487

PROPOSED SOLUTION

To address this issue, we are developing the **Semantic Search and Recommendation Algorithm**, a machine learning model specifically designed to expedite the search process within large datasets. This algorithm aims to drastically reduce search times from potentially hours to mere milliseconds, providing a robust and efficient solution for data retrieval in massive files.

In addition to speeding up the search process, our model will recommend the most clicked instances based on the filter of the searched word. For example, if a user searches for the word "hello," the model will not only quickly locate all instances of "hello" within the dataset but also identify and display the results based on the filter used by the user. These top instances will be stored in memory, allowing the model to provide relevant and user-centric results that enhance the search experience.