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AUTOMATED RESUME ANALYSIS SKILL SUGGESTING WEBSITE USING NLP

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ABSTRAT:

The most qualified applicant for a position must be found through careful consideration of job applications, which is done during the Automated Evaluation of Resumes Using NLP stage of the hiring process. [1] Automated resume screening is now a practical alternative to the manual screening procedure because to developments in deep learning and natural language processing (NLP) [7]. In this paper, we examine a few contemporary methods for screening automated resumes. To increase the precision and effectiveness of the screening process, these approaches employ a variety of methods including hybrid deep learning frameworks, transfer learning, genetic algorithms, and multisource data. Also, some research investigates the use of job descriptions to improve resume screening precision. These research' experimental findings show that the suggested strategies are more effective than conventional ones. The results of this study can help human resource managers and recruiters automate the hiring process and efficiently and impartially identify viable applicants.

INTRODUCTION

An essential step in the hiring process is the automatic review of resumes, which entails assessing job applications to find the applicant most suited for a given position. This procedure may take a long time and be prone to human mistake, which could lead to the loss of qualified individuals. Automated resume screening has grown in popularity recently as a solution to this problem. Automatic resume screening uses several methods to enhance accuracy and efficiency, including deep learning algorithms, machine learning, and natural language processing (NLP). Several studies have suggested various methods for automating the screening of resumes. Li et al. (2020) introduced a hybrid deep learning framework that makes use of long short-term memory (LSTM) networks and convolutional neural networks (CNNs) [6]. The project for resume screening utilizing NLP techniques like S-BERT [9] and cosine similarity has as its major goal the development of an automated system that can effectively filter and score job applications based on their resemblance to a given job description. The resumes' listed talents are then determined. With the resume parser package, the essential data from the resume is extracted. The main goal of using NLP algorithms for resume screening, such as cosine similarity and S-BERT, is to ensure that the most qualified individuals are found and given further consideration while

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automating the hiring process. The specific goals of the recruiting process are to become more effective by automating the screening of job applications. to provide a more objective method to reduce the possibility of biases in manual screening by utilizing cutting-edge NLP algorithms such as cosine similarity and S-BERT to improve resume screening accuracy. to increase the number of resumes processed while saving time and money by eliminating the need for human screening. In order to improve the candidate experience, a faster and more effective screening procedure is offered. Improving the quality of the hiring process.

RELATED STUDY

In 2021, Nandhini S, Gomathi S, and Lavanya S published "Automated Resume Screening Using Natural Language Processing" in the International Journal of Advanced Research in Computer Science and Software Engineering. The study proposes an automated resume screening system that extracts data from resumes using NLP techniques and ranks them based on how well they match the job description. "Resume Screening using Natural Language Processing and Machine Learning" was

published by Kondapalli Sai Pranay in the International Journal of Current Technology and Engineering in 2020. The method outlined in the study uses NLP and machine learning to screen resumes and match them to job descriptions. In 2019, "Automated Resume Screening System Using Machine Learning and Natural Language Processing" by Shweta Agrawal and Sumit Gupta was published in the International Journal of Innovative Technology and Exploratory Engineering. The study describes a system that uses machine learning and NLP to scan resumes and rate them based on how closely they fit the job description. The article "A Comprehensive Analysis of Resume Screening Techniques" by Aditi Kaushik and Shruti Jain was published in the International Journal of Computer Science and Mobile Computing in 2018. Pradeep Kumar Mishra and Sanjay Kumar published "Resume Parsing and Analysis Using Natural Language Processing" in the International Journal of Innovative Research in Computing and Communication Engineering in 2017. The technology described in the study parses resumes using NLP approaches to extract relevant data such as skills and experience. "Automatic Resume

Filtering Using Machine Learning," by Anindya Sarkar and Debajyoti Mukhopadhyay, was published in the International Journal of Engineering and Technology in 2016. The algorithm described in the paper screens resumes using machine learning techniques and ranks them based on how closely they match the job description.

PROPOSED SYSTEM:

The most qualified applicant for a position must be found through careful consideration of job applications, which is done during the Automated Evaluation of Resumes Using NLP stage of the hiring process. [1] Automated resume screening is now a practical alternative to the manual screening procedure because to developments in deep learning and natural language processing (NLP) [7]. In this paper, we examine a few contemporary methods for screening automated resumes. To increase the precision and effectiveness of the screening process, these approaches employ a variety of methods including hybrid deep learning frameworks, transfer learning, genetic algorithms, and multisource data. Also, some research investigates the use of job descriptions to improve resume screening precision. These research'

experimental findings show that the suggested strategies are more effective than conventional ones. The results of this study can help human resource managers and recruiters automate the hiring process and efficiently and impartially identify viable applicants.

WORKING METHODOLOGY

The Resume Screening is the key module where it is utilized to shortlist the best resumes from the list of resumes which are submitted from the gathered resumes. In this module, the job description is entered or chosen by the short lister after which the resumes from a folder are first uploaded. They are then submitted for screening using the S-BERT algorithm [8]. Finally, the best resumes that were shortlisted will be shown with the ".pdf" extension and the name of the portable document format.

Post New Job Screen
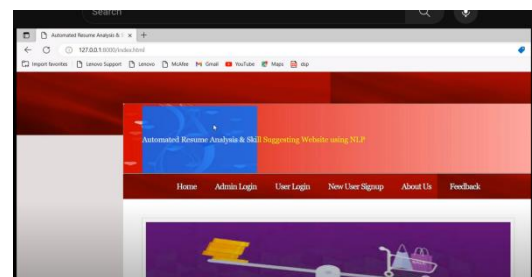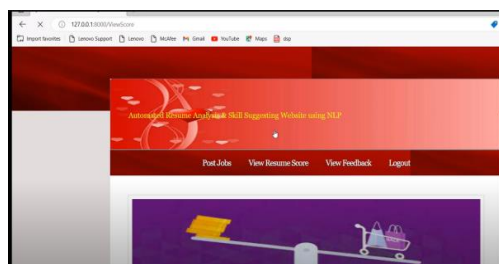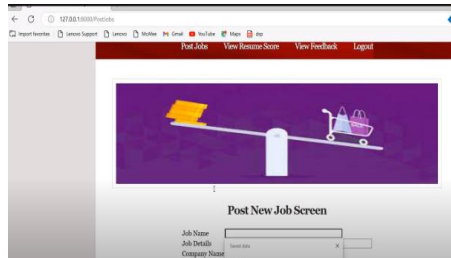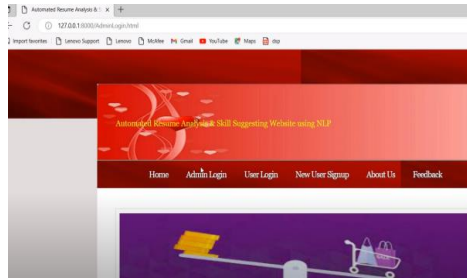
CONCLUSION

By drawing this conclusion, we'll say that applying NLP algorithms for resume screening—like SBERT and cosine similarity—offers several benefits over more traditional methods. These algorithms are exceedingly precise, efficient, and adaptive, and they can handle unstructured data, such as resumes written in many languages. They can also minimize prejudice among people and enhance candidate matching, improving recruiting processes. It is critical to remember that these algorithms have limitations and are not optimal in all circumstances

[11]. So, it is crucial to use these algorithms as a part of a larger hiring strategy that also includes human judgement and arbitrary criteria. The use of NLP algorithms in recruiting, such as SBERT and cosine similarity, is a promising development that has the potential to fundamentally alter how businesses screen and select job candidates.

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