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Review on AI-Based Interview BOT

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Abstract

Appearing for a job interview can be a mentally frustrating and emotionally draining experience for students, especially when it's their very first time. So, the idea of building an AI-based Interview Bot came in order to help students/fresher prepare for their job interview through an AI-based automated interview. AI-based Interview Bot is a platform that will take real-time interviews and extract the optimum candidate potential in an unbiased stress-free environment. It consists of an emotion recognition model, an automated interview model, a result generator, etc. it provides mock automated AI-based interviews for the student to prepare them for good interview performance.

Keywords*: - AIML, Artificial Intelligence, Chatbot, NLP, Emotion Recognition, Real-time analysis.*

INTRODUCTION

Today's era is all about Artificial Intelligence. AI is one of the most important and promising technologies that exist today in various fields like transportation, healthcare, education, etc. AI is transforming the world in various aspects via innovation. Recently AI has emerged in the recruitment sector as well.

Seeking a job for a fresher can be a dreadful experience at first glance. When a company recruits people, it looks for candidates who are technically sound as well as good interactive skills and non-verbal behaviour. A good job interview performance requires proper communication skills, personality, confidence as much as it needs technical

knowledge. Most candidates are unmindful of these basic cruces of the job interview process. Students can check their understanding of the technical domain-specific skills through various tests available on a variety of platforms, but a job interview preparation requires a combination of technical knowledge, communication skills and appropriate non-verbal behaviour. There is no such particular platform available to practice all these important skills and assess an individual's performance which is why students tend to be anxious while appearing for job interviews.

So an unbiased system is much needed in such scenarios where students can practice, assess and develop their weak areas and prepare themselves for a job interview. The AI-based Interview Bot system aims to provide a real-time automated interview that examines a candidate's technical expertise as well as non-verbal behaviour through a facial emotion recognition model and issues a detailed result report which covers the score of the performance of the candidate, their non-verbal behaviour percentage and also a categorized report on which areas they are good, or they lack and need to work on. It will also track the candidate's performance so that he/she can improve it. Thus, an automated interview bot can help the students/fresher get ready for their job interview process.

LITERATURE SURVEY

Interactive Interview Chatbot paper presents the survey and implementation of replacing a human interviewer with a bot. A typical job interview process mainly contains two major steps, which are technical interview and human resource interview. This process consumes a lot of resources and is complicated to an extent. Automating this process will not only save time and resources for company's but also will turn to be unbiased and easeful comparatively. This paper addresses the issues occurring in the traditional recruitment process like consumption of various resources, the expense or sometimes the human interviewer can be biased or tired, which can have unfavorable effects on the entire selection process. A chatbot can be considered as a talking bot that can carry out a meaningful conversation with humans via AI-based algorithms and technologies. This paper aims to present an interactive chatbot that can conduct interviews of the potential candidates and generate a result of their performances based on which selection process will take place.

Recruitment Bot paper presents the idea of using a chatbot based on AI technologies for taking up interviews similar to what takes place in the actual recruiting process. It makes use of the fundamental concept in machine learning that is to build the model, train the model and test it. The basic implementation of this system includes a high-quality dialogue dataset that is trained with suitable machine learning algorithms in order to get maximum accuracy and minimum errors.

The paper titled Facial Expression Recognition: A Survey in a way introduces the role of Artificial intelligence in facial expression recognition and its significance. Facial expressions play a vital role in communication with one another or day to day information exchange. Facial emotion recognition has major applications in various domains like education, recruitment, entertainment, psychology, augmented reality and virtual reality. This paper implements the facial expression recognition technique through a deep learning framework. It consists of three steps, mainly image processing, feature extraction and emotion classification. The algorithms used can process the input data provided and gives output with decent accuracy; however, these algorithms can only adapt to limited variations resulting in low accuracy. Lack of high-quality available data, high volume data processing are some major challenges stated in the paper.

AVAILABLE TECHNOLOGY

An AI-based Interview Bot can be considered as a real-time automated interview. It can be used in the educational domain and recruitment process, which can help candidates get ready for the job interview. Many companies have already started using it for their recruitment process because of the remarkable advantages that it provides.

Here are some of the existing systems that are similar: Gecko is an AI-based interview platform that works on AI, facial emotion recognition and sentimental analysis. It provides the facility of playing back the candidate's interview for detailed analysis and also to provide deep insights on the candidate's attitude, positive impression and overall sentiment.

Auto View is another AI-powered interview bot that is a product of Aspiring Minds. It uses technologies such as neural language processing, speech recognition, machine learning, video analytics for implementing the automated interview process. It basically shortlists the

candidate based on 4 parameters which are knowledge required for the job role, works cultural fit criteria, facial expression and sentimental analysis of voice and overall personality.

AI Bot for taking interviews to shortlist candidates, developed by Youbotics, conducts technical interviews in real-time and auto-evaluates the responses of candidates and customizes the next question making it an adaptive interview. It helps companies in their hiring process.

CONCLUSION AND FUTURE ENHANCEMENTS

In this paper, we present a review of an AI-based interview bot that can be used by students or a fresher to prepare for a job interview. The system very well predicts the general performance of the student, which includes their technical knowledge as well as the overall confidence level of the student while giving the interview. It provides a detailed result report on which areas the student lacks and needs to work on for better preparation.

The AI-based Interview Bot solves the problem of many students who are unaware of the fundamentals of how to approach the job interviews to achieve success in them or for the students who are afraid, tensed and anxious about their first time giving the interviews by giving them the experience of a closer resemblance to the actual process. It helps in assessing an individual's knowledge and readiness to appear for the job interview.

In the future, we can make the system more dynamic in order to get a more enhanced system with increasing accuracy in results. We can also include some other important areas of the recruitment process for a fresher, like checking the effectiveness in the communication of the candidate, overall personality evaluation and resume parsing.

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