



## AI Interview Trainer

Sopan Bhare<sup>1\*</sup>, Sejal Dudhat<sup>2</sup>

International School of Business and Media

**Corresponding Author:** Sopan Bhare [sopan.bhare2112@gmail.com](mailto:sopan.bhare2112@gmail.com)

---

### ARTICLE INFO

*Keywords:* Artificial Intelligence, Machine Learning, Natural Language Processing

*Received :* 10, August

*Revised :* 17, September

*Accepted:* 27, October

©2023 Bhare, Dudhat: This is an open-access article distributed under the terms of the [Creative Commons Attribution 4.0 International](https://creativecommons.org/licenses/by/4.0/).



### ABSTRACT

Now days AI is playing a crucial role in our daily life such as in the medical field, IT industry, Education, and so on. In this paper, we introduced a new AI bot that helps you to get a jobs in various fields like the IT industry, Education, etc. Next, we discuss the technology used for developing AI Bot such as Artificial Intelligence, Machine Learning, and Deep Learning as well as various frameworks that help to develop Bots such as Natural Language Processing (NLP), Translator (speech-to-text and text-to-speech), Speech analysis, etc. The aim of developing this project is for users to identify their strengths, weaknesses, and personality improvement to succeed in an interview. AI bots can be considered as a substitution for humans beings in terms of interaction.

---

## INTRODUCTION

Artificial intelligence (AI) is permeating more and more aspects of our daily lives with the creation and analysis of "intelligent agents," or intelligent hardware and software. Intelligent agents can carry out a variety of tasks, including intricate procedures and manual work. The chatbot, which is a typical illustration of an artificial intelligence system, is one of the most widespread and fundamental types of intelligent human-computer interaction. It is a computer program that can understand one or more human languages through Natural Language Processing (NLP) and reacts to conversations via text or voice like a sentient entity. A computer application made to mimic human-user communication. Smart bots, interactive agents, digital assistants, and intelligent conversation entities are other names for chatbots. Chatbots are capable of entertaining users and imitating human speech. They come in handy for things like teaching.

The number of people seeking work has increased due to population growth and increased awareness of education; as a result, higher education institutions and businesses have begun to use the recruitment process of interviews to weed out the most qualified applicants. To succeed in these tough interviews, a candidate needs to possess both personality traits and an understanding of ethics and etiquette in order to be chosen with ease.

Goal: The project's goal is to create an artificial intelligence bot that assists users in interview preparation so they can improve themselves accordingly

## LITERATURE REVIEW

### *Virtual Assistant for Mock Interviews*

This project uses a chatbot to let users and machines converse. It also entails designing and conceptualizing the chatbot.

### *An outline of chat technology*

The utilization of categorization algorithms to assist in categorizing the user's level of interview preparation

### *Tips for Interview Preparation*

This study provides information on chatbots that are in use globally and evaluates their advantages in order to select and develop a chatbot that would work well for hiring and support businesses in a cutthroat market.

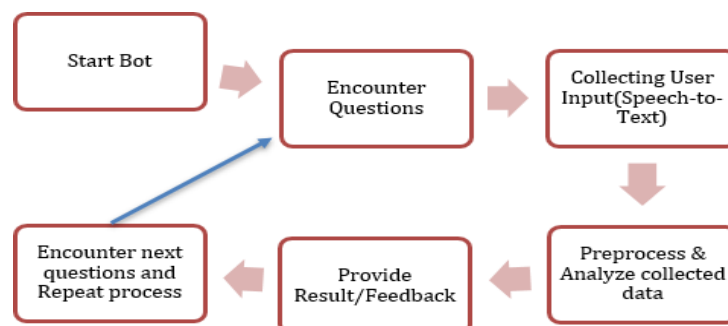


Figure 1. Working flow of AI Interview

## METHODOLOGY

### *Speech to Text Conversion:*

1. Audio Preprocessing: the audio signals is pre-processed to remove noise and improve the signal to noise ratio
2. Feature Extraction: Feature extracted from pre-processed audio signals
3. Speech Recognition: The features are then used by speech recognition algorithm to generate a hypothesis of the text that was spoken
4. Post-Preprocessing: To correct any Error, such as misidentified words and mispronounced words.

### *Text to Speech:*

1. Text analysis: To identify the words and punctuation marks
2. Feature Extraction: Feature are extracted from the text, such as the phonemes, the stress, and the intonation.
3. Model training: Model is trained on corpus of audio recording of speech
4. Speech Synthesis: Statistical model is used to synthesize the speech waveform.

## RESEARCH RESULT

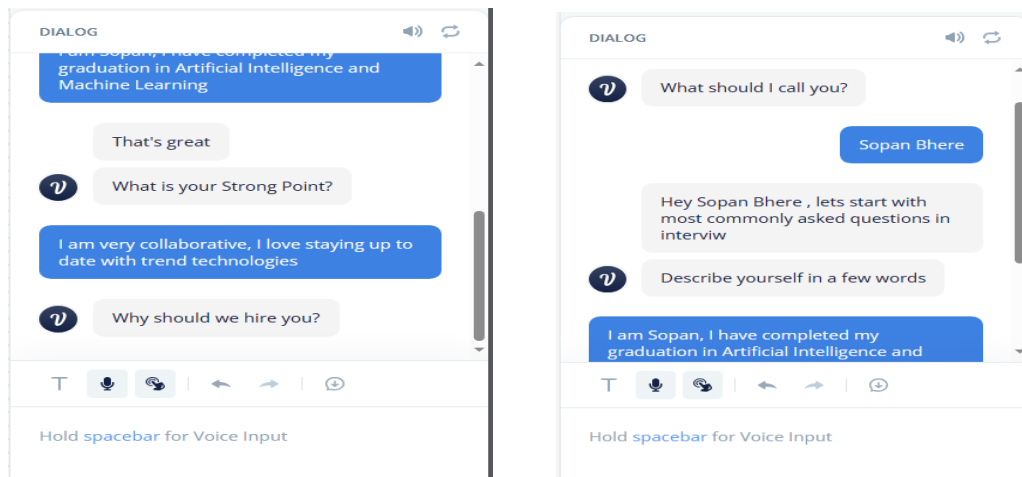


Table 2 is an illustration of an AI chat

## CONCLUSIONS AND RECOMMENDATIONS

We have a virtual Interview Trainer at the conclusion of the project, which allows users to simply engage with them like they would in a real interview while also boosting their confidence and skill set.

## ADVANCED RESEARCH

In this study, we are up against a few obstacles, like:

1. Initial Natural Language Preprocessing
2. Gathering user voice
3. Text to audio conversion or the other way around.
4. Creation of a discussion review and report

## ACKNOWLEDGMENT

I feel great pleasure in expressing my deepest sense of gratitude and sincere thanks to my guide Prof. Suraj Bhoite for their valuable guidance during the project work. I have no word to express my sincere thanks for valuable guidance.

## REFERENCES

Bansal, H., Khan, R.: A review paper on human computer interaction. Int. J. Adv. Res. Comput. Sci. Softw. Eng. 8, 53 (2018).

Dialogflow. <https://dialogflow.com/>

Eleni Adamopoulou, Lefter is Mousiness, "An Overview of Chat bot Technology"

International Conference on Artificial Intelligence Applications and Innovations [29 may 2020]

K. Anitha, V. Shanthi, "A Study on Intervention of Chat bots in Recruitment", Innovations in Information and Communication Technologies, springer [16 july 2021].

Khanna, A, Pandey B, Vashishta K, Kalia K, Bhale P, Das T. A study of today's A.I. through chatbots and rediscovery of machine intelligence. Int. J. u-e-Serv. Sci. Technol. 8, 277–284 (2015).

Klopfenstein, L., Delpriori, S., Malatini, S., Bogliolo, A.: The rise of bots: a survey of conversational interfaces, patterns, and paradigms. In: Proceedings of the 2017 Conference on Designing Interactive Systems, pp. 555–565. Association for Computing Machinery (2017)