

REVIEW ON SONG RECOMMENDING CHATBOT

Fasna , Jareesha Mumthaz , Nihala K N , Samya Ali

¹ Student , Dept of Computer Science and Engineering , IES College of Engineering , Kerala, India

² Student , Dept of Computer Science and Engineering , IES College of Engineering , Kerala, India

³ Student , Dept of Computer Science and Engineering , IES College of Engineering , Kerala, India

⁴ Assistant Professor , Dept of Computer Science and Engineering , IES College of Engineering, Kerala ,India

ABSTRACT

.In this project, they have built an extensive Chatbot service, to which users can talk to. And talking to a chatbot wouldn't be business-driven. It would just be casual conversations. Further, on top of it, the chatbot would also be recommending songs to the user based on the tone of the user. This song recommendation feature employs the use of Last.fm API, very much similar to the popular Spotify API. Also for tone/emotion analysis of the conversation we will be using the IBM Tone Analyzer API. Collaborating with these types of APIs is very much critical as in today's world the popular chatbots do much more than simply having a data-driven conversation; to supplement additional user-oriented features. Also the reason to choose python to build the chatbot is because python boasts a wide array of open-source libraries for chatbots, including scikit-learn and TensorFlow. It is great for small data sets and more simple analyses; also Python's libraries are much more practical.

Keywords: - Chat Bot , IBM Tone Analyzer, Last.fm API, Music Classification based on mood , and Acoustic Analysis

1. INTRODUCTION

The purpose of chat bots is to support and scale business teams in their relations with customers. It could live in any major chat applications like Facebook Messenger, Slack ,Telegram ,Text Messages, etc. Chatbot applications streamline interactions between people and services, enhancing customer experience. At the same time, they offer companies new opportunities to improve the customers engagement process and operational efficiency by reducing the typical cost of customer service. Focused on building a custom chatbot that will be your fundamental step of the learning curve of building your own professional chatbots. Now-a-days, we all are living in the time where nothing is certain. Same goes with our mind, at regular instances of time our mood, our choices and our priorities changes . Considering the constant changing behavior of human being , the chatbot is introduced .By considering that the humans experience frequently changes in their mood and somehow, at particular moment of time, frequently changing of mood would also result in change in mood of music of their choice. Hence, with the help of this system user's can listen music according to their mood. In addition, there is also a facility is provided to user to chat with the chat bot after all texting makes conversation between chat bot and user more interactive and it will efficiently help in analyzing the current mood of the user and based on that chat bot will recommend songs .After chatting with the chat bot, current mood of the user is analyzed and list of songs is suggested to user, using the concept of NLP (Natural Language Processing). Based on the list of songs user can choose the song to be played based on his or her choice.

2. LITERATURE SURVEY

[1]Nishtha Kapoor | Arushi Gupta | Gulshan Kumar | Dhruv Aggarwal

In this paper ,the proposed system is a chatbot that analyses a user's mood and based on this mood ,will recommend songs .Here this project also have used certain open source api 's :

- IBM's emotions API
- Last.fm ap

Three main modules used in the project and referred in the paper are

- Chatbot
- Emotion Detection
- Music Recommendation

1.CHATBOT

This chatbot answers frequently asked questions using a predefined dataset. Messages are included in a JSON file and appropriate messages are mapped. This data is used to train a neural network to take input and display response. After the data is pre processed , a feed-forward neural network is used to look a bag of words and give a class that they belong to. This is done by using Keras sequential API. After this some functions are applied to identify class and retrieve response.

2.EMOTION DETECTION

IBM Tone Analyzer API is used to analyze the tone of the conversation. Linguistic analysis is used to detect emotional and language tones in written text.

3. MUSIC RECOMMENDATION

The Last.fm Songs API is used so that music services can send them data, but also provide endpoints that summarize all the data that Last.fm has on various artists, songs, and genres. The song is recommended using GUI. This uses Anvil framework for GUI.

The algorithms used are

- DEEP LEARNING
- NATURAL LANGUAGE PROCEESING

Music recommendation system using chatbot (Musync) recommends songs to the user based on their mood.

[2]Prof. Suvarna Bahir, Amaan Shaikh, Bhushan Patil, Tejas Sonawane proposed a music recommendation chatbot which plays music according to the changing moods of humans .It has the facility to user chat with the chatbot , after all conversations between the user and the chatbot , the chatbot can analyze the mood of the user and can recommend song . A signup page is there for the first time users and also there is a password recovery facility for those who forget the password . This system comprises of four modules.

- Signup page
- Login page
- Chatbot GUI
- Result

After chatting with the chat bot, current mood of the user is analyzed and list of songs is suggested to user, using the concept of NLP (Natural Language Processing)Natural language processing :Technique used to determine whether data is positive, negative or neutral.

[3]Nikhil Kumar| Aarish | Tina dudeja in this paper develop a better song recommendation system with chat bot, it will be asking for mood and feeling ,on the basis of that it will find the songs from database. add a screen timer to recommender system to avoid the over use. More technologies and python modules are used to connect the user with the chatbot. Technology used in this paper are:

- Lemmatization
- Tokenization
- Stemming
- NLP

Initially used tokenization which will help to process sensitive data elements from the chat and taken out a logical meaning. After that use of lemmatization which take out word from chat separate using vocabulary. And done steaming for check and remove inflections and .json file for creating own database then comes to graphical user interface (GUI) used tkinter for that. By using natural language process to convert chat to emotions. First phase of NLP is Lexical analysis the phase analyses the source code as a stream of characters it gets as input from the user and converts it into the meaningful lexemes. Then comes Syntactic analysis is used to check grammar in the words which arranged accordingly and show the relationship between among them in the user is connecting to chatbot for chatting which connected to all other parts of this recommender system which analysis the emotions and mood and to improve the mood it will recommend songs to the user through Spotify server and the .json file which contains all database. This music bot helps people to listen to their favourite music and automatically create the list of songs on the basis of chat with chatbot

[4]Shivam Saroke | Pratic Jagdale |Mansi Borawake |Ankita Khandalkar | In this paper they use the tools and technologies which include python, tensor flow, andkeras layer.in proposed system, the main goal is to determine the users mood based on their text tone with an application installed on users desktop .human computer interaction (hci) is recognize the emotion from text in this IBM analyzer check the text tone of the user and fm .api recommend songs on the mood . and tone analyzer by IBM help to detect the communication tone in written text. sorting of large collection of digital music in done by I tunes and spotify .the frontal view of users text is used to determine the mood. A number of experiments are presented in this section to analyze the results of the classification of songs based on various features of the audio. An engineering group from the BNM Institute of Technology in Bangalore, India, will present its work. There were differences in intensity, timbre, pitch, and rhythm in a variety of songs across moods according to an algorithm. After analyze the mood of user it provide the playlist to the users current mood.

4. CONCLUSION

In conclusion , we discover that a music recommending system can be build using different open source APIs. The chatbot is implemented using IBM Tone Analyzer ,which identifies the tone of the user. The songs are divided into different genres and assigned appropriate moods based on a number of pre-existing DSP algorithms such as the fast Fourier transform (FFT).The songs are recommended by using a dataset and trading a model for selecting the song based on mood .This song is played using GUI .

Traditional music recommending applications were using models like SVD,KNN to recommend songs .These systems could only provide songs by dividing people into groups, and recommending same songs for every person in the group. The approach we took is rather a personal approach where every person gets his own song based on his mood.

5. REFERENCES

- [1]. [1] MU-SYNC - A Music Recommendation Bot, Nishtha Kapoor | Arushi Gupta | Gulshan Kumar | Dhruv Aggarwal
- [2] CHAT BOT SONG RECOMMENDER SYSTEM , Prof. Suvarna Bahir*1, Amaan Shaikh*2, Bhushan Patil*3, Tejas Sonawane*4
- [3] Music Bot Recommender System, Nikhil Kumar, Aarish, Tina Dudeja
- [4] Music Recommender System Using Chat Bot Shivam Sakore¹, Pratik Jagdale², Mansi Borawake³, Ankita Khandalkar⁴