WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

First View – Interview Practice Platform

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DOI: https://doi.org/10.55248/gengpi.4.423.37701

A B S T R A C T

Verbal and Non-verbal communication plays a crucial role in human communication, especially in job interviews. we present a computational framework that automatically quantifies verbal and nonverbal behaviours in the context of job interviews. Our framework will detect facial expression, Speech recognition & project the most frequent expression given by the user and gives the short note on their speech.

***Keywords*:** Interview Practice, Speech Recognition, Face emotion, Code compilation

1. Introduction

Now-a-days interviews plays a crucial role in getting jobs. As there are many websites for one-on-one interview practices, but most of them are paid versions, but there is no website which analyzes verbal and Non-verbal behaviour of the interviewee. There is no chance of improving their performance and getting a job quickly. To overcome this problem, we are developing a website which develops the interview performance and chances of getting a job through the live practical sessions.

2. Literature Review

The following sources provide a fluid explanation of the design of First-view and have been drawn from a survey of a few research publications on face emotions and the state of the educational system today. OttmorV.Lipp[1] supports three single emotion tasks and an emotion comparison task were used in experiments 1 and 2 to test the detection of happy, sad, and angry faces among neutral backdrops. In tasks that included all three target emotions, both experiments showed that anger was more likely to be detected than other negative or positive emotions. Only with schematic faces was there evidence for the preferential detection of negative emotion in general. The current findings support the idea that, in contrast to the identification of positive emotion, the detection of angry and, to a lesser extent, sad facial expressions derive from a more effective visual search.

Prerana, KakaliAcharjee [2] VOICE RECOGNITION SYSTEM: SPEECH-TO-TEXT is software that enables voice control of computer features and text dictation. The system consists of two parts: the first part processes the acoustic signal that is recorded by a microphone, and the second part interprets the processed signal before mapping it to words. The Hidden Markov Model (HMM) will be used to build a model for each letter. We'll use Mel Frequency Cepstral Coefficients (MFCC) for feature extraction. Vector quantization will be used for the dataset's feature training, and the Viterbi algorithm will be used for the dataset's feature testing. Voice recognition technology will serve as the sole foundation for home automation. A piece of software called VOICE RECOGNITION SYSTEM: SPEECH-TO-TEXT enables users to voice-command computer operations and narrate text.

Chengyong Wu [3].The main open-source compiler for the ItaniumTM Processor Family (IPF, formerly known as IA-64), the Open Research Compiler (ORC), was created collaboratively by Intel Microprocessor Technology Labs and the Institute of Computing Technology of the Chinese Academy of Sciences. because itsSince its initial release in 2002, it has been extensively used as a code base for new development as well as a compiler and architecture research infrastructure in academia and industry across the globe. We provide an overview of the major ORC components' designs in this study, focusing on the code generator's novel features. He talked about the development technique that is crucial for accomplishing ORC's goals. Performance comparisons with different IPF compilers and an overview of the ORC-based research are provided.

3.Design and Development

The detailed study has been carried out the design for various components of the web application. The First-View was built using a combination of Hml&CSS,python,Javascript.Flask was chosen as the framework for its component-based architecture and ease of used.We Present a computational

framework that automatically quantifies verbal and nonverbal behaviors in the context of job interviews.Our framework will detect facial expression,Speech recognition and detect the most frequent expression given by the user and gives the short note on their speech.

3.1 Algorithm:

The following algorithm are used to restrict the user to share only the allowed content like project ideas, news, technology related content.

1. Haar Cascade

1. Haar Cascade

In the HAAR cascade, a cascade function is trained using a large number of both positive and negative pictures. Images with faces are considered positive, whereas those without faces are considered negative. Image characteristics are viewed in face detection as numerical data taken from the images that may differentiate one image from another. Steps of facial detection using Haar cascade

Step 1: Start the algorithm.

Step 2: By using the x, y, w and h coordinates and captures the image from live detection

Step 3: The image is divided into small parts.

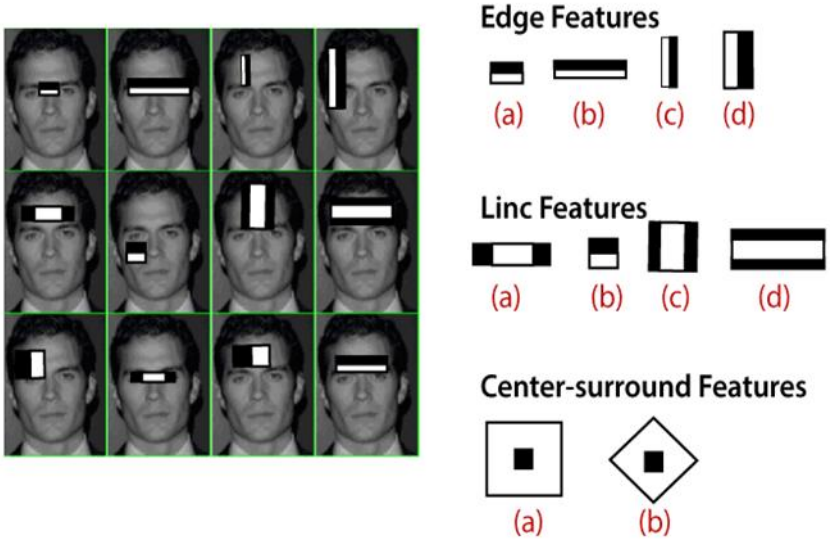
Step 4: We put n number of coordinates to detect the face

Step 5: By detecting the organs in the face it confirms and forms rectangular frame along it.

Step 6: Then the frame starts process and detects the expressions.

Features

we extract the features from the image, with the help of edge detection, line detection, and center detection. Then provide the coordinate of x, y, w, h, which makes a rectangle box in the picture to show the location of the face. It can make a rectangle box in the desired area where it detects the face.



Frame work:

1.Flask:

Flask can be used to build a web application that allows users to upload images or videos, and then uses a face detection algorithm to detect and highlight the faces in the media. It can also be used to build APIs that integrate with popular face detection libraries like OpenCV and also used to build a real-time face detection system that streams video from a webcam applies face detection algorithms in real-time.

4. Module Description

There are two types of modules are developed in our project:

- **System**: System has to allocate the questions for the practice sessions. System gives output of the graph for the facial expressions throughout the interview practice. System gives the questions asked and answer we given for the questions in the practice session.

- **User:** User have to open website. User can't add, edit, delete data in website but they can view details. User can study for the interview from the provided data. User can also practice the coding questions. User can start and end practice interview sessions

Some of the sub modules in our user web application are:

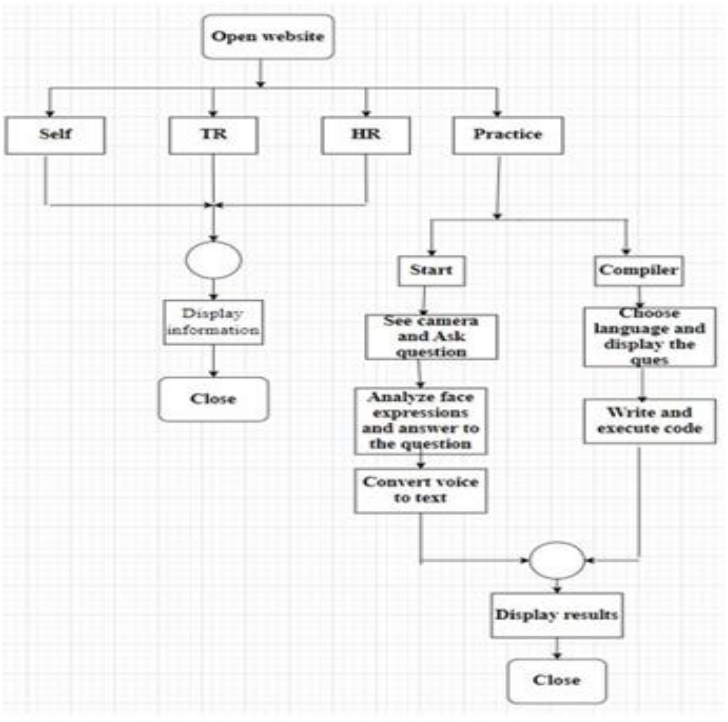
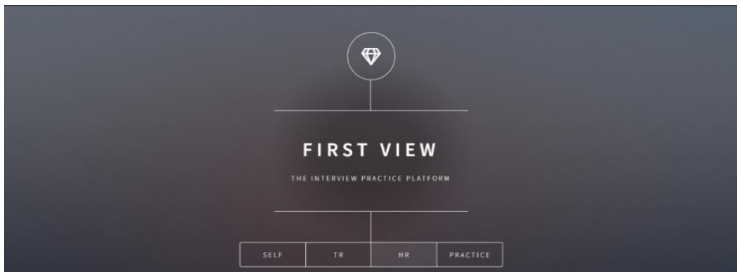


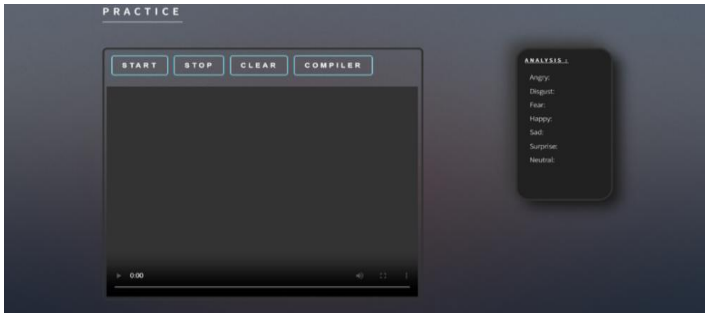
Fig 1: Flow chart Diagram of First-view

5. User Interface

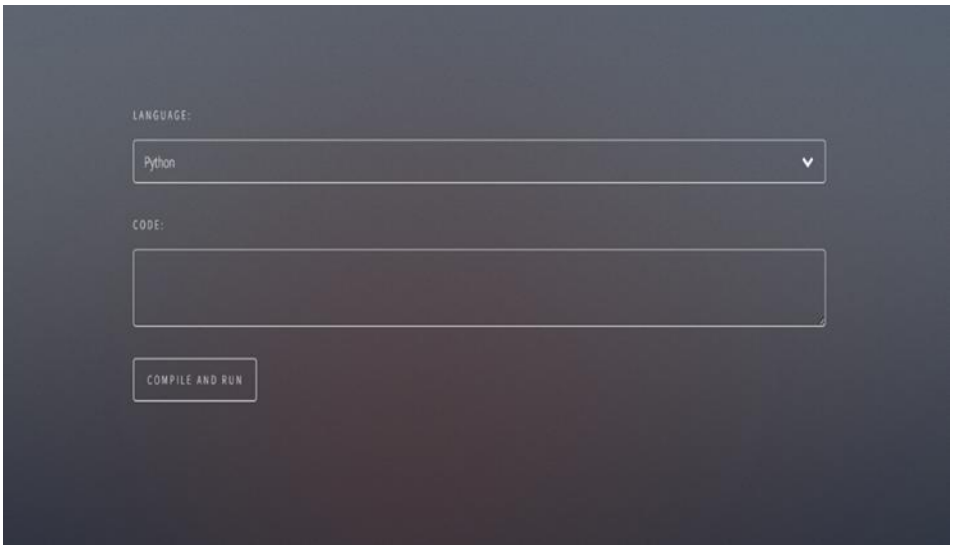
The user interface of the social media app was designed with a focus on user experience and ease of use. The app's interface is modern and intuitive, with a clean and simple layout that allows users to easily navigate and access its features. It provides simple, responsive, call-to-action functionality, and real-time updating interface. Figure 2(a) and 2(b) shows the interface of the application



2(a). Home page



2(b). HR Interview practice Page



2(c). Coding questions practice Page

6. Conclusion

This system presents a computational framework that automatically quantifies verbal and nonverbal behavior in the context of job interviews. Our framework will detect facial expression, Speech recognition & detect the most frequent expression given by the user and gives the short note on their speech Acknowledgements

Yuvaraj M, who served as guide throughout the development process, providing valuable guidance and support.

The development team, Consisting K.S.ArathyNag(Lead, Front-end developer), Mohithvardhan(developer), myself(lead developer), Sai Lakshmi (Python developer) and Baabi and Sai Rohith(beta Testers).

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