Documentation

Introduction

This documentation describes the functionality and usage of a Flask and React-based web application that can decode body language and also includes a feedback form that stores data in SQLAlchemy. The application is designed to analyze and interpret a person's body language in real time, provide insights into their emotions and intentions, and collect feedback from users.

Flask is a micro web framework written in Python that is used for building web applications. React is a JavaScript library that is used for building user interfaces. The combination of Flask and React provides a powerful platform for building web applications with rich user interfaces and advanced functionality. SQLAlchemy is a SQL toolkit and ORM that provides a set of high-level APIs for connecting with SQL databases.

Installation:

The following steps are required to install and run the Flask and React-based body language decoder app:

1. Clone the GitHub repository to your local machine.
   https://github.com/shivamkumar1337/pose-detection

2. Navigate to the project directory.
   ```
   cd body-language-decoder
   ```

3. Install the required python packages.
   ```
   pip install -r requirements.txt
   ```

4. Install the required JavaScript packages.
   ```
   cd frontend
   npm install
   ```

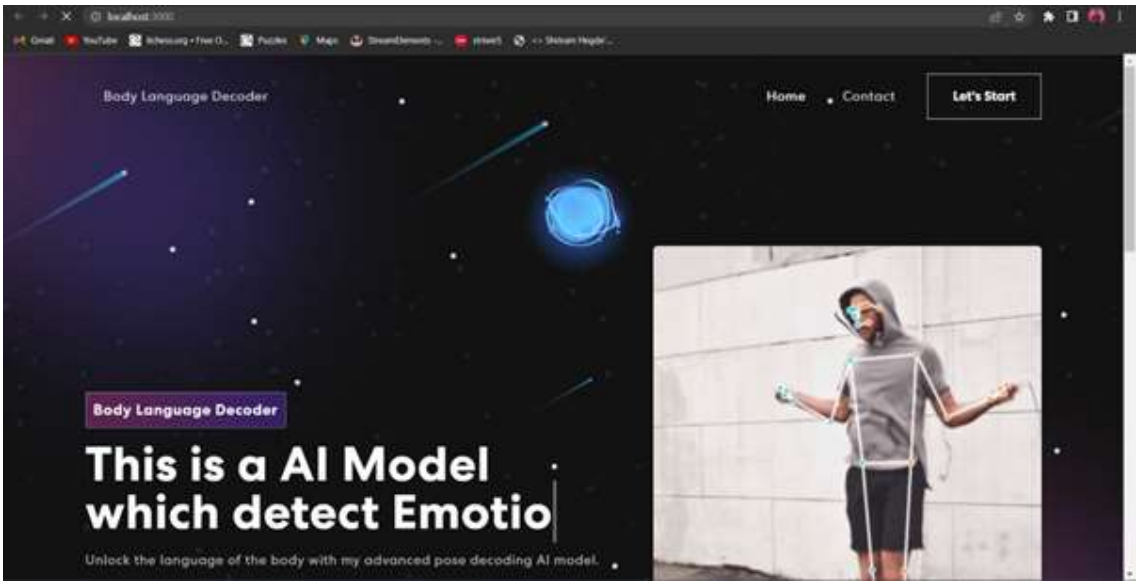
Usage:

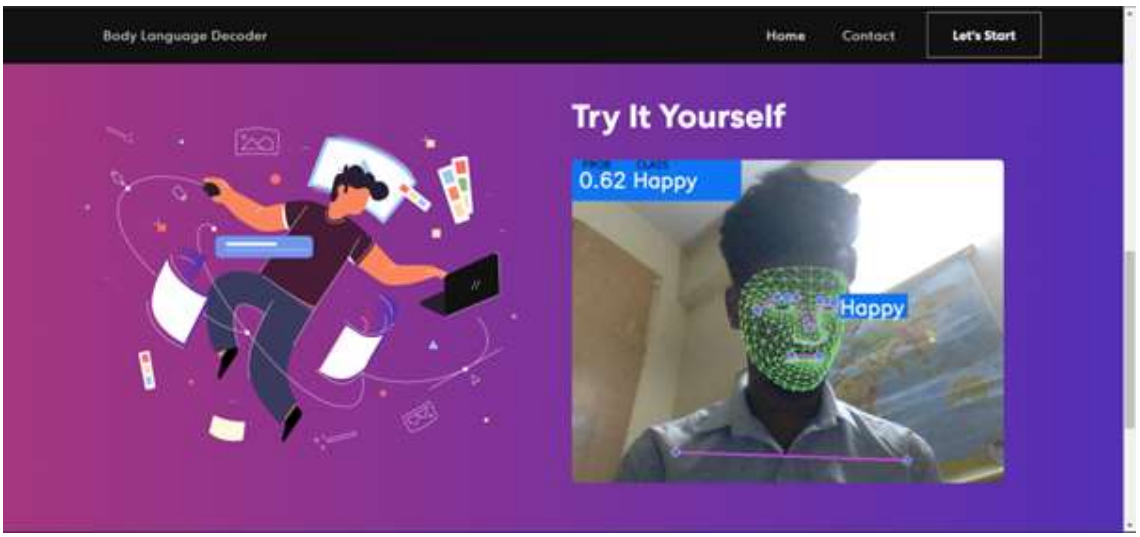
To use the body language decoder app, follow these steps:

1. Start the Flask server.
   ```
   python app.py
   ```
2. Start the React frontend.
   ```
   cd frontend
   ```
4. ```
   npm start
   ```
5. Open the application in your browser by navigating to http://localhost:3000.
6. Once the application is running, you will be prompted to allow access to your webcam. Click "Allow" to proceed.
7. The application will begin analysing your body language and displaying insights into your emotions and intentions in real time.
8. To submit feedback, click on the "Feedback" button in the navigation bar.

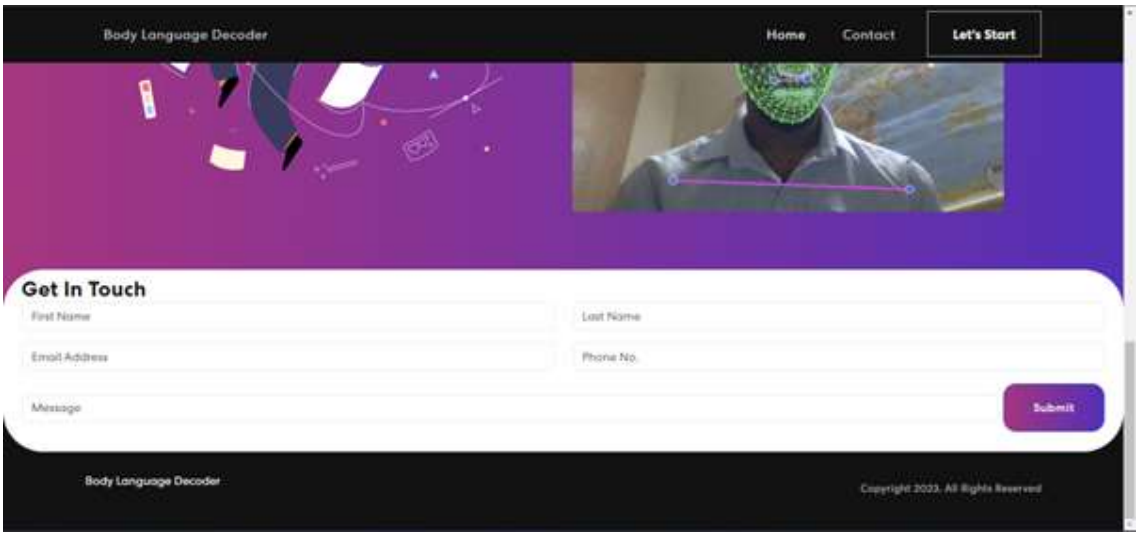
By Shivam Kumar
Shivamkumar102003@gmail.com
   ```

9. Fill out the feedback form and click “Submit”. Your feedback will be stored in the SQLAlchemy database.





By Shivam Kumar
Shivamkumar102003@gmail.com



Features:

The app provides the following features:

1. Real-time analysis of body language: The app uses machine learning algorithms to analyse and interpret the body language of a person in real time to detect facial expressions, body posture and sign language.
2. Currently the model is working on a small dataset due to unavaibility and storage constraints.
3. Insights into emotions and intentions: The app provides insights(probability) into the emotions and intentions of the person based on their body language.
4. User-friendly interface: The app has a user-friendly interface that is easy to navigate and provides a seamless user experience.
5. Feedback form: The app includes a feedback form that allows users to submit feedback on their experience using the app. The feedback is stored in an SQLAlchemy database.
6. The AI functionality is added in the backend as the frontend we cannot store the data but in the backend, we store the data and can load every time whenever we need also we have to load and train massive data for an efficient model for that also we need to add the AI functionality in the backend.

Conclusion:

The Flask and React-based body language decoder app with a feedback form that stores data in SQLAlchemy provides a powerful platform for analyzing and interpreting the body language of a person in real-time, collecting feedback from users, and storing the feedback in a secure database. The app is easy to install and use, and provides valuable insights into the emotions and intentions of the person being analyzed. The customizable settings and user-friendly interface make the app a valuable tool for anyone looking to improve their communication skills and understand the nonverbal cues of others.

By Shivam Kumar
Shivamkumar102003@gmail.com