



EmoDetect

Project Presentation

Jasmeet Singh

Project Re-Introduction

UN SDG(s)



SDG 3: Good Health and Well-being



SDG 4: Quality Education

Goal:

This project aims to create a user-friendly application for accurately identifying and managing six different types of emotions: anger, fear, happiness, neutrality, sadness, and surprise. Additionally, the app offers personalized recommendations, including meditation practices and nearby dining options, to help users enhance their emotional well-being. This innovative approach aims to empower individuals to proactively improve their mental health and emotional resilience across a spectrum of emotions.

COPs & Digital Habitats Overview

Main

Individual participation/Serving a context Community: Individuals seeking to understand and manage their own emotions for personal well-being. Family members and friends wanting to support their loved ones in emotional struggles.

Secondary

Content/Building Relations

Community: In this community the main objective is to ensure content integrity and reliability. To provide content that reaffirms members' trust and reflects the organization's commitment to delivering accurate information.

What's out there & What I am offering

What's out there

Calm: Calm emphasizes relaxation techniques, meditation, and sleep aid through soothing sounds and guided sessions. Offers a variety of meditation sessions, sleep stories, and calming music for stress relief and better sleep.

Headspace: Headspace focuses on guided meditation, stress reduction, and mindfulness practices. Offers guided meditation sessions, mindfulness exercises, and techniques for improving focus, sleep, and relationships.

What I am offering

Unlike existing apps, my project focuses on real-time emotion detection using machine learning. It provides immediate emotion analysis based on uploaded images.

The project's emphasis is on recognizing emotions and suggesting personalized recommendations to manage emotions effectively.

Additionally, future enhancements aim to implement live emotion recognition and connect users with experts for personalized assistance.

Demo

EMODETECT

HOME

ABOUT

FEEDBACK

SCAN YOUR EMOTION

EMODETECT

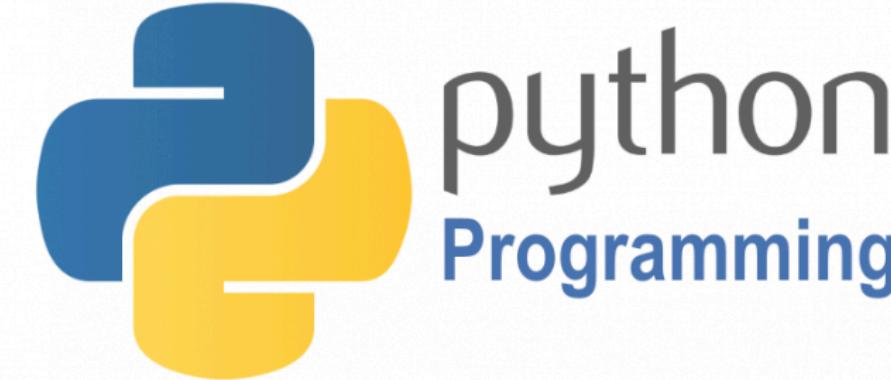
Where emotions are valued

Tech Stack

Front-end



Back-end



Machine Learning Framework



TensorFlow

Reflections

I'm quite satisfied with the project outcome. While there's progress, achieving real-time webcam functionality on the front-end remains a goal. Overall, I found the project to be successful, especially in its ability to integrate Flask effectively and implementing recommendations based on the image detection.

My proudest moment in this project was gaining proficiency in Flask and receiving positive feedback during discussions with the Health and Safety team at U of R. Knowing that the project has piqued their interest and could potentially be explored further was a rewarding recognition of the effort put into the project.

This project has been an eye-opener for me in terms of potentially pursuing a career in machine learning. I discovered my abilities on learning new concepts and technologies within this domain, which has sparked a newfound confidence in my abilities as a future software engineer.

The knowledge and skills acquired from this project will be invaluable, especially as I am taking Machine Learning course next semester. Additionally, I believe in leveraging community-driven approaches, emphasizing collaboration and innovation for the greater good, which will undoubtedly guide my future projects and initiatives.

Future Work

1. Dashboard Implementation

Develop a dashboard to track and analyze emotions detected for medical purposes.
Enable visualization of emotion trends over time for better insights.

2. Integration with Experts

Implement functionality to connect users with experts directly from the web application.
Enable real-time communication for immediate assistance and guidance.

3. Real-time Emotion Recognition

Shift from image uploads to real-time emotion detection on the website
Implement features that enable for immediate assistance as guidance



Thank You!

Any Questions?