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Personal Outfit Suggester

A.Ramya Lahari 221106

K.Brundha Sai 221125

V.Bhavitha 221169

Introduction

Brief Overview of the Project:

This website is designed to assist users in finding outfits that suit their body shape and complexion. By using AI, users will input their body measurements and upload photos to receive personalized outfit suggestions. Additionally, the site will feature a virtual try-on model where users can visualize how an outfit will look on their body.

Github link: <https://github.com/outfitsuggester?tab=repositories>

Problem Statement

What Problem Are You Solving?

Many users struggle to find clothes that fit well based on their bodyshape and complexion. Traditional shopping methods don't offer personalized recommendations that match these individual factors, and trying clothes online can often feel uncertain or untrustworthy.

Why Is This Problem Important?

Online shopping is growing rapidly, but users often return clothes because they don't fit well or don't suit their body shape. This leads to frustration and poor shopping experiences.

Objectives and Goals

- Offer personalized outfit suggestions based on body shape, measurements, and complexion.
- Provide a virtual try-on experience that allows users to see how outfits will look on them in real life.
- Enable users to shop directly for suggested outfits via links to online stores like Amazon, Myntra, etc.

Key Features

- User Input & Analysis
- AI-Powered Outfit Recommendation
- Affiliate Shopping Integration
- Virtual Try-On AI
- User Experience & Design

User Functionalities

Step 1: User uploads a photo and enters body measurements.

Step 2: AI determines body shape and complexion.

Step 3: Personalized outfit recommendations are displayed.

Step 4: Virtual try-on feature allows users to see how they look in the selected outfits.

Step 5: Users can purchase the outfit directly via affiliate links.

Technologies

Frontend (React.js, Next.js) – Handles UI, user interactions, and API calls.

Backend (Node.js, FastAPI) – Manages authentication, AI processing, and API integrations.

AI Processing Engine (PyTorch, TensorFlow, OpenCV) – Runs virtual try-on models and 3D image processing.

Database & Storage (PostgreSQL, Firebase, AWS S3) – Stores user data securely.

Third-Party APIs (Amazon, Myntra, Stripe, etc.) – Fetches clothing products and payment processing.

Technical Challenges

- **Data Privacy & Security:**

Ensuring that users' body measurements and photos are stored securely.

- **Accurate Virtual Try-On:**

Realistically applying outfits to users' images requires high precision in AI model training.

- **Integration of Multiple APIs:**

Ensuring smooth communication between various shopping platforms and the website.

- **Image Processing Performance:**

Generating accurate 3D models with quick response times.

Conclusion.....

The idea of this personal outfit suggester website is to make shopping a more personalized and enjoyable experience by leveraging AI to deliver tailored recommendations. It's a one-stop platform for fashion advice, virtual fitting, and affiliate shopping.

Thank you