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Project ideas:

1. AI-Based Personalized Fashion Stylist with Virtual Try-On

Description

INTRODUCTION

The project allows users to virtually try on clothes by uploading their photos.

It gives personalized outfit recommendations based on:

- Body type
- Face shape
- Skin tone
- Cultural preferences (especially Pakistani traditional wear)

It combines:

- Pre-trained ML APIs (for fast and accurate image processing)
- Custom-trained ML models (like GANs for virtual try-on)

Frontend: Built using React.js

Backend: Uses both:

- Django (for ML processing and logic)
- Node.js (for managing APIs, image uploads, and communication)

Cloud storage is used for securely saving images, outfits, and user data.

Blockchain is used to hash and store metadata of uploaded images for privacy and traceability.

The tool supports a B2B "store-in-store" model, allowing:

- Business owners, designers, or boutiques to register and create their own virtual stores
- Upload and manage their outfit collections
- Use the try-on system to showcase their designs on real user photos
- Get insights on which designs are performing well

The platform serves both individual users (for personal styling) and fashion businesses (to showcase and test outfits digitally).

PROBLEM STATEMENT

With the rise of e-commerce in Pakistan, online platforms like Daraz have witnessed a surge in popularity, yet consumer dissatisfaction has also grown—particularly in the fashion and garment sector

- Reports show that out of 566 complaints registered against Daraz, only 2 were resolved, with the majority involving issues like products not matching their descriptions, wrong sizing, and poor return policies.

- According to a 2023 e-commerce report, 18% of consumers reported receiving products that did not match the item they ordered

OUR GOAL:

- As online garment shopping continues to grow through 2025, customers still lack a way to virtually try on clothes before purchasing, leading to mistrust and increased return rates.
- Our project addresses this by offering an AI-based personalized fashion stylist tool where users can upload their image, try different outfits virtually using GANs and pretrained APIs, and receive accurate visual previews.
- This not only enhances the user experience but also empowers businesses (B2B) to create embedded digital stores within the platform—bridging the gap between expectation and reality in Pakistan’s evolving online fashion landscape.

2. AI-Based Missing Person Identifier with Facial Recognition

INTRODUCTION

The project allows users to upload photos of missing persons to help identify and locate them quickly.

It provides accurate recognition and retrieval of details by analyzing facial features, enhancing public safety and speeding up investigations.

Key features include:

- * Facial recognition using advanced AI to extract unique facial features
- * Integration with databases to fetch details of the missing person (such as name, last known location, physical attributes, and contact info)
- * User-friendly interface to upload images securely and receive matching results
- * Real-time alerts and notifications for matches or updates

Technologies used:

- * Pre-trained ML APIs for fast and accurate face detection and feature extraction
- * Custom-trained ML models for improved matching accuracy in diverse conditions (lighting, pose, occlusion)
- * **Frontend:** Built with React.js for seamless user experience
- * **Backend:** Combination of:

Django for AI processing, matching logic, and database integration

Node.js for API management, image handling, and real-time communication

- * Cloud storage for secure and encrypted image storage
- * Blockchain technology to hash and securely store metadata of uploaded images, ensuring privacy and traceability

The platform supports a B2B model allowing:

- * Government agencies, law enforcement, NGOs, and private investigators to register and manage their missing person cases
- * Upload and manage case files and photos
- * Use the system to quickly identify matches from user submissions
- * Access detailed analytics on cases and identification trends

The system serves both individual users (family and friends) and organizations involved in locating missing persons, enhancing cooperation and speed in the identification process.

PROBLEM STATEMENT

According to the International Committee of the Red Cross (ICRC), over 70 million people worldwide are reported missing every year. In Pakistan alone, authorities report approximately 10,000 new missing person cases annually, with many cases remaining unresolved due to lack of rapid identification tools.

- * Current manual methods used by law enforcement and NGOs are slow and error-prone, often resulting in delays of weeks or months before a missing person can be identified or found.
- * A recent study revealed that 85% of missing person cases remain open due to inadequate facial recognition and data management tools.
- * Families frequently express frustration with the inability to upload photos and search centralized databases, which results in poor public engagement and slow progress.

OUR GOAL

- * To reduce the average identification time from weeks/months to under 24 hours by providing an AI-powered system capable of instantly matching uploaded photos with missing persons databases.
- * To improve the identification success rate by at least 40% through the use of advanced facial recognition models and continuous learning algorithms.
- * To offer a centralized platform accessible to individuals and authorities, facilitating the registration of over 90% of reported missing persons cases in Pakistan within the first year of deployment.

* To ensure privacy and trust by using blockchain technology for secure, tamper-proof storage of image metadata, making the system reliable and transparent.

* To foster collaboration among NGOs, law enforcement, and the public, increasing active user participation by 50% within the first year.

3. Remote Health Monitoring + AI Diagnosis Dashboard

4. Digital glasses

- Can do voice translation, audio convert to different languages.
- Projector view: like in class during lecture we can attend online classes with physical mode visualization.
- We can also screen share our laptop, mobile, computer to our glasses vision