SYNOPSIS

1.Virtual Dressing Room – Detailed Synopsis & Modules

The Virtual Dressing Room is an AI-driven application that enables users to try on clothes digitally using image processing and augmented reality. With the rapid growth of online shopping, customers often face difficulty visualizing how outfits will look on them, leading to increased dissatisfaction and return rates. This project addresses this challenge by using computer vision, pose estimation, segmentation techniques, and 3D garment fitting models.

The system captures the user's image or video and automatically detects the user's body landmarks (shoulders, hips, waist) using advanced pose detection algorithms like OpenPose or MediaPipe. The selected clothing item is then resized, rotated, and fitted onto the user's detected body region. The system provides an interactive preview where users can try multiple outfits, mix and match items, and save or share their looks.

This project can be integrated into e-commerce websites, fashion retail stores, or mobile applications, improving customer experience and reducing product returns.

MODULES

1. User Account & Profile Module

Register/Login using email or social media

Manage personal profile

Save preferred sizes and body measurements

Maintain try-on history

2. Image/Video Capture Module

Capture live video for real-time try-on

Option to upload existing photos

Background removal using segmentation

3. Body Measurement & Pose Detection Module

Detect keypoints like head, shoulders, chest, waist, hip

Auto-estimation of height & body proportions

Pose classification: standing, side, angled

4. Garment Database Management Module

Store images of clothes in 2D or 3D format

Category filtering (tops, jeans, sarees, jackets, etc.)

Garment metadata: size, brand, color, availability

5. Virtual Try-On Engine (Core Module)

Overlay garments accurately on user image

Adjust fit, scale, and rotation automatically

Provide 360° view if garment has 3D model

Smooth blending using image processing

6. Outfit Recommendation & Styling Module

Suggest clothing based on user's size

Fashion recommendations using ML

Mix-and-match outfit generator

7. Shopping & Payment Module (Optional)

Add selected items to cart

Integrated payment gateway

Track orders

8. Admin Panel Module

Manage clothing inventory

View user statistics

Manage retailer accounts

SYNOPSIS

2. AI-Based Resume Screener – Detailed Synopsis & Modules

An AI-Based Resume Screener is an intelligent recruitment tool that automates the process of screening and evaluating resumes. Recruitment teams often receive hundreds of resumes for a single job posting, making manual screening time-consuming and prone to bias. This system uses Natural Language Processing (NLP) and Machine Learning to extract key information from resumes and compare it with the job's requirements.

The system parses resumes to identify candidate details like skills, education, work experience, certifications, and projects. It then matches these features with the job description using keyword analysis, semantic similarity models, and ranking algorithms. The system assigns each candidate a relevance score, helping HR teams shortlist the best applicants quickly and accurately.

This reduces hiring time, ensures fair evaluation, and improves the quality of selected candidates.

MODULES

1. HR/User Management Module

HR login

Multi-level roles (Admin, Recruiter, Reviewer)

Dashboard to manage jobs and candidates

2. Resume Upload & Storage Module

Upload resumes in PDF, DOC, DOCX

Bulk upload feature

Secure storage in the database

3. Resume Parsing Module (NLP Engine)

Convert unstructured resume text into structured data

Extract:

Name, contact

Skills (technical & soft skills)

Work experience

Education

Projects

Certifications

Remove duplicates and irrelevant content

4. Job Description Processing Module

Create new job postings

Extract required skills, minimum experience

Identify key responsibilities

Weightage-based requirement analysis

5. Candidate Screening & Scoring Module (Core AI Logic)

Compare parsed resume data with job requirements

Calculate skill match score

Experience relevance score

Keyword similarity score

Overall ranking using ML models

6. Shortlist & Reporting Module

Display top candidates with scores

Generate detailed comparison charts

Export shortlist as PDF or Excel

7. Email & Notification Module

Send interview calls

Notify rejected candidates

Automated status updates

8. Admin & Data Analytics Module

Track recruitment trends

Skill gap analysis

System usage statistics

SYNOPSIS

3.Student Result Analysis System – Detailed Synopsis & Modules

The Student Result Analysis System is a digital platform designed to efficiently manage academic records and provide meaningful insights into student performance. In traditional systems, teachers manually calculate results, generate report cards, and analyze class performance, which is time-consuming and error-prone. This project automates result computation and introduces analytical tools to improve academic decision-making.

The system stores student information, exam details, subject-wise marks, and attendance. It automatically calculates total marks, percentage, grade, class average, toppers, and performance trends. Analytical graphs give insight into subject difficulty levels, improvement areas, and performance comparison across semesters or sections.

This system benefits schools, colleges, and coaching institutes by providing accuracy, speed, and data-driven academic analysis.

MODULES

1. User & Role Management Module

Admin login

Teacher login

Student/Parent login (optional)

Manage user permissions

2. Student Information Management Module

Register/update student details

Class & section allocation

Import students via Excel

3. Marks Entry & Exam Management Module

Add marks for each student and subject

Support for multiple evaluations:

Unit tests

Mid-term

Final exam

Bulk upload of marks

4. Result Processing Module

Automatic total and percentage calculation

Grade generation based on defined criteria

Pass/Fail status

Ranking within class

5. Performance Analysis Module (Core Analytics)

Subject-wise analysis

Highest/lowest/average marks

Class performance dashboard

Year-wise comparison

Identify weak students and improvement areas

6. Report Card Generation Module

Auto-generate PDF report cards

Include grades, remarks, attendance

Download/print options

7. Notifications & Communication Module

Send results to students/parents

Announcements and exam updates

8. Admin Panel & Data Backup Module

Database backup

System configuration

Manage academic year settings