

FashionAI: Your Personalized Virtual Stylist

A

SYNOPSIS

SUBMITTED TO THE

SHETH L.U.J AND SIR M.V. COLLEGE

FOR THE DEGREE

OF

BACHELOR OF COMPUTER SCIENCE

IN

COMPUTER SCIENCE



BY

NIKITA PRADEEP HIRAP

(Seat No. S084)

UNDER THE GUIDANCE OF

Prof. MAHENDRA KANOJIA

DEPARTMENT OF COMPUTER SCIENCE

SHETH L.U.J AND SIR M.V. COLLEGE,

DR. S. RADHAKRISHNAN MARG, ANDHERI EAST, MUMBAI- 400069

INTRODUCTION

The fashion industry is at the forefront of innovation, embracing technology to cater to the growing demands for convenience, personalization, and sustainability. However, traditional online shopping often leaves users struggling to visualize how a garment will look and feel on them. Similarly, staying updated with ever-changing fashion trends or finding clothing tailored to individual preferences can be overwhelming. "**FashionAI: Your Personalized Virtual Stylist**" aims to address these challenges by reimagining how people interact with fashion online.

This platform is an all-in-one solution that combines **Virtual Try-On technology**, an interactive **Fashion Trends Dashboard**, and a sophisticated **Personalized Shopping Assistant**. Users can digitally try on outfits in real-time using augmented reality (AR) or upload their photos for a realistic preview. Through the Fashion Trends Dashboard, users gain instant access to real-time insights on trending styles, colors, and designs sourced from social media, fashion influencers, and global events. Additionally, the AI-powered Personalized Shopping Assistant ensures that every user receives recommendations tailored to their preferences, budget, and past shopping behavior.

But **FashionAI** doesn't stop there. It also integrates unique features like a **Digital Closet**, where users can upload their wardrobe and receive outfit pairing suggestions. A **Sustainability Insights module** provides eco-conscious users with information about the environmental impact of their purchases, while **gamified experiences** encourage users to engage with the platform through challenges and style contests. Social features like sharing try-on results or following influencers add a community element to the experience, making shopping more interactive and enjoyable.

By combining cutting-edge technologies like AR, AI, and data visualization, **FashionAI** offers an immersive, intuitive, and personalized journey. Whether you're a trend-savvy fashion enthusiast or someone looking for budget-friendly, eco-conscious options, FashionAI caters to all. It not only simplifies the decision-making process but also inspires confidence in purchases, reducing returns and enhancing customer satisfaction.

With a mission to revolutionize online shopping and empower users to express their unique style, **FashionAI** stands at the intersection of fashion and technology, creating a platform that is as forward-thinking as the trends it showcases.

MODULES

1. User Management Module

Purpose: Handle user registration, authentication, and profile customization.

Key Features:

- User sign-up and login (via email, phone, or social media).
- Style preference quiz for onboarding.
- User profiles with personal details (size, body type, favorite colors, etc.).
- Wishlist management for favorite items.
- Secure data storage and privacy controls.

2. Virtual Try-On Module

Purpose: Allow users to visualize clothing items on themselves.

Key Features:

- Upload photos or use a webcam for real-time AR-based try-ons.
- 3D rendering of clothing items with options for rotation and zoom.
- Adjustable size and fit options for accuracy.
- Integration with AR frameworks for realistic visualization.
- Shareable try-on results for social media or friend feedback.

3. Fashion Trends Dashboard Module

Purpose: Display real-time insights into fashion trends.

Key Features:

- Trends analysis using APIs like Pinterest, Instagram, and Google Trends.
- Interactive graphs showcasing trending colors, patterns, and styles.
- Curated trend-based outfit collections.
- Alerts for seasonal or event-specific trends (e.g., summer wear, wedding season).

4. Personalized Shopping Assistant Module

Purpose: Provide tailored outfit recommendations and shopping assistance.

Key Features:

- AI-powered recommendations based on user preferences, budget, and history.
- Chatbot for conversational queries like "Show me casual dresses under ₹500."
- Price alerts for wishlist items.
- Integration with retailers for seamless shopping.

5. Digital Closet Module

Purpose: Help users organize their wardrobe and get styling suggestions.

Key Features:

- Users upload photos of their wardrobe items.
- Outfit pairing suggestions based on existing items and new products.
- Seasonal organization and style tips.
- Virtual mix-and-match functionality.

6. Sustainability Insights Module

Purpose: Promote eco-friendly fashion choices.

Key Features:

- Display the environmental impact of clothing items (e.g., water usage, carbon footprint).
- Highlight sustainable and ethical brands.
- Eco-friendly alternatives to popular items.

7. Social and Community Module

Purpose: Encourage user engagement and collaboration.

Key Features:

- Share try-on results or style boards with friends and followers.
- Community forums for style tips, feedback, and discussions.
- Follow influencers and see their recommended styles.
- Style challenges and voting for favorite looks.

8. Search and Filter Module

Purpose: Simplify product discovery for users.

Key Features:

- Smart search with filters for size, color, brand, and price range.
- AI-driven product suggestions based on search history.
- Trend-based filters (e.g., “minimalist fashion,” “boho style”).

09. AR Accessories Try-On Module

Purpose: Extend virtual try-on capabilities to accessories.

Key Features:

- Real-time AR visualization of sunglasses, hats, jewelry, and bags.
- 3D layering to match accessories with outfits.
- Customizable fit and style adjustments.

10. Payment and Checkout Module

Purpose: Enable secure transactions.

Key Features:

- Integration with multiple payment gateways (e.g., PayPal, Stripe, Apple Pay).
- Order history and tracking.

CONCLUSION

The fashion industry is rapidly evolving, with technology playing a pivotal role in shaping customer experiences. **"FashionAI: Your Personalized Virtual Stylist"** stands at the intersection of fashion and innovation, offering a comprehensive solution to the challenges of modern online shopping. By integrating **Virtual Try-On technology**, a **Fashion Trends Dashboard**, and an **AI-driven Personalized Shopping Assistant**, the platform provides a seamless, engaging, and personalized journey for users.

Through additional features like the **Digital Closet**, **Sustainability Insights**, and **Gamification**, **FashionAI** goes beyond being just a shopping tool—it becomes a lifestyle companion, helping users make informed, stylish, and sustainable fashion choices. The platform's emphasis on user interactivity, trend awareness, and eco-consciousness not only enhances the shopping experience but also fosters a sense of community and creativity among users.

In conclusion, **FashionAI** is more than just a project; it is a vision for the future of fashion. It empowers users to explore and express their personal style confidently while staying connected with global trends and making eco-friendly decisions. By revolutionizing how people shop for fashion, **FashionAI** has the potential to redefine the online fashion retail landscape and set a new standard for personalization and innovation in the industry.