

An Intelligent Virtual Clothing Try-On Platform Integrating GAN-Based Image Synthesis and Chatbot-Powered Fashion Guidance

Ms. Sejal Jadhav¹, Ms. Kajol Mishra², Mr. Piyush Bhandare³, Ms. Nishita Tahilramani⁴,
Mr. Dhananjay Raut⁵

Students, Computer Department, Watumull Institute of Engineering & Technology Ulhasnagar, India^{1,2,3,4}
Associate Professor, Computer Department, Watumull Institute of Engineering & Technology Ulhasnagar, India⁵

Abstract: *This model introduces an AI-driven virtual try-on platform aimed at transforming the online shopping experience. By allowing users to visualize themselves in different outfits, it reduces uncertainty related to size, fit, and style—common issues in traditional e-commerce.*

Users can upload or capture images to virtually try on clothing items. The system uses the Defocus GAN model to accurately isolate the user's outfit and overlay new garments with high realism. An integrated chatbot enhances the experience by offering personalized fashion suggestions based on user preferences and past activity.

Additional features include trending product showcases, advanced search, and secure payments via a test-mode Stripe gateway. Together, these elements create a dynamic shopping environment that blends convenience, personalization, and visual accuracy.

Keywords: generative AI, Defocus GAN, virtual try-on, fashion recommendation, image processing, e-commerce, chatbot, stable diffusion, warp model

