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Team Name: Enemies_of_Syntax

Team Details:
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Problem Statement

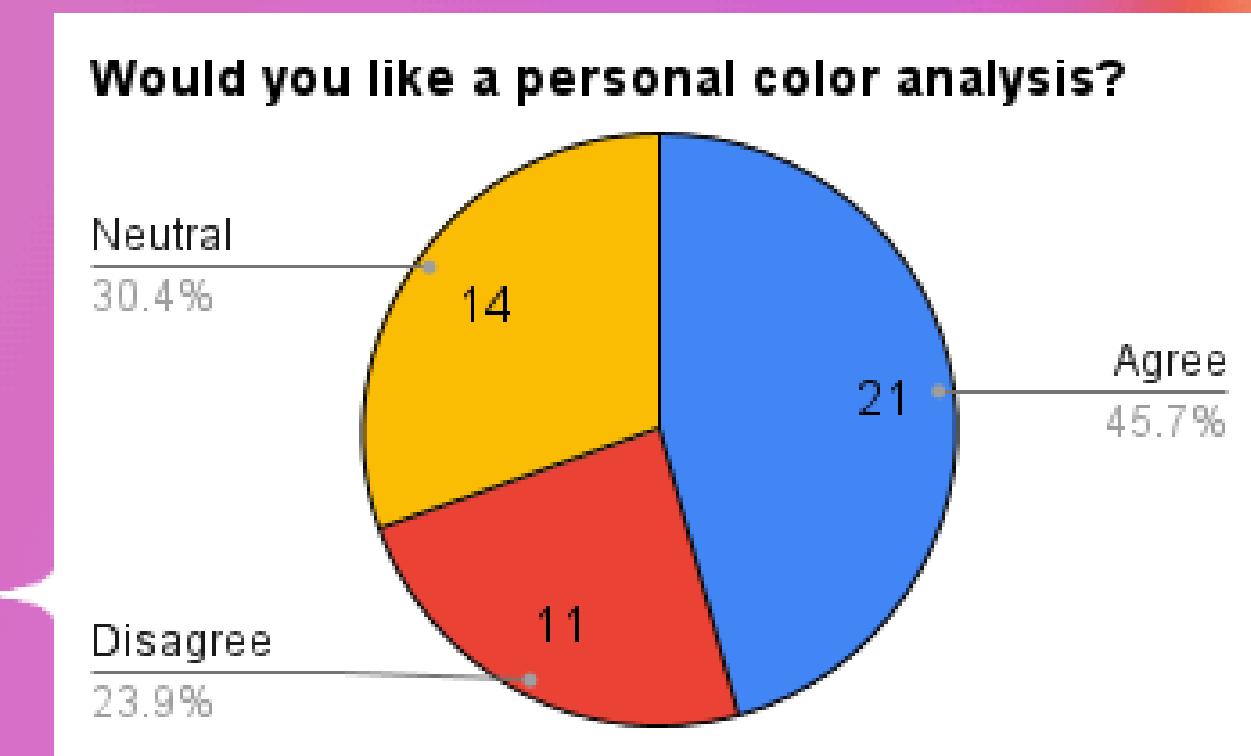
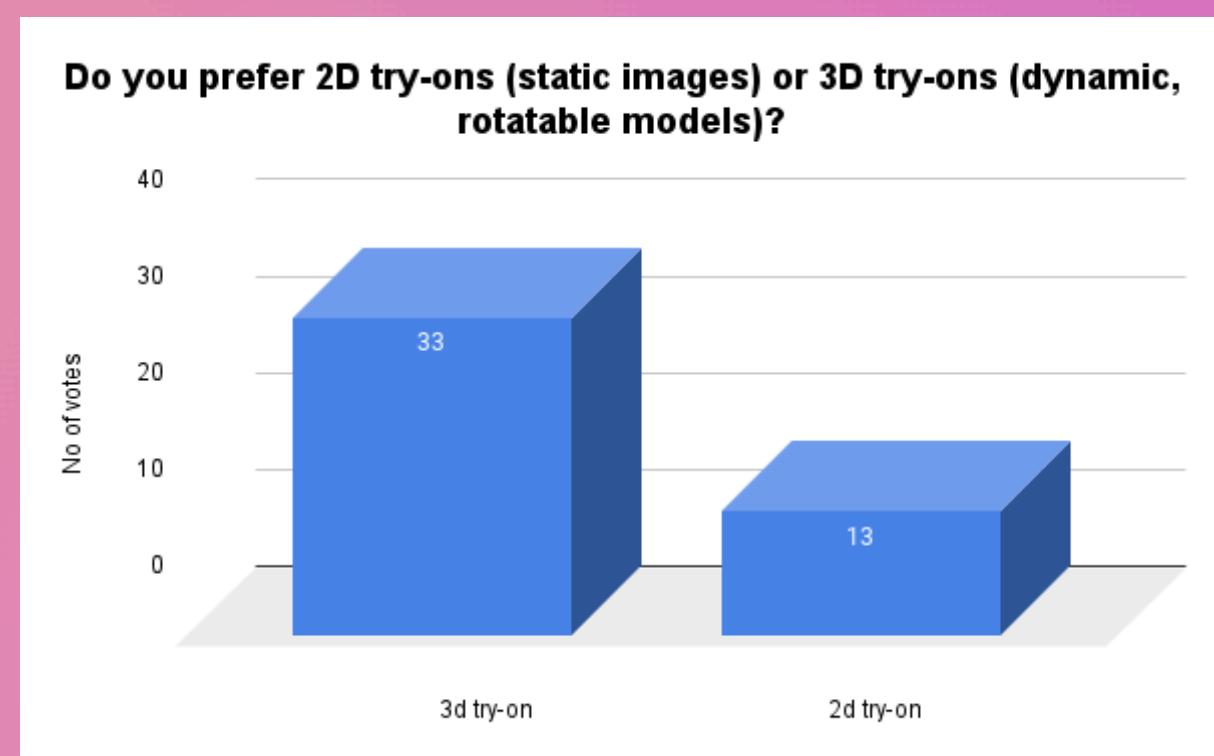
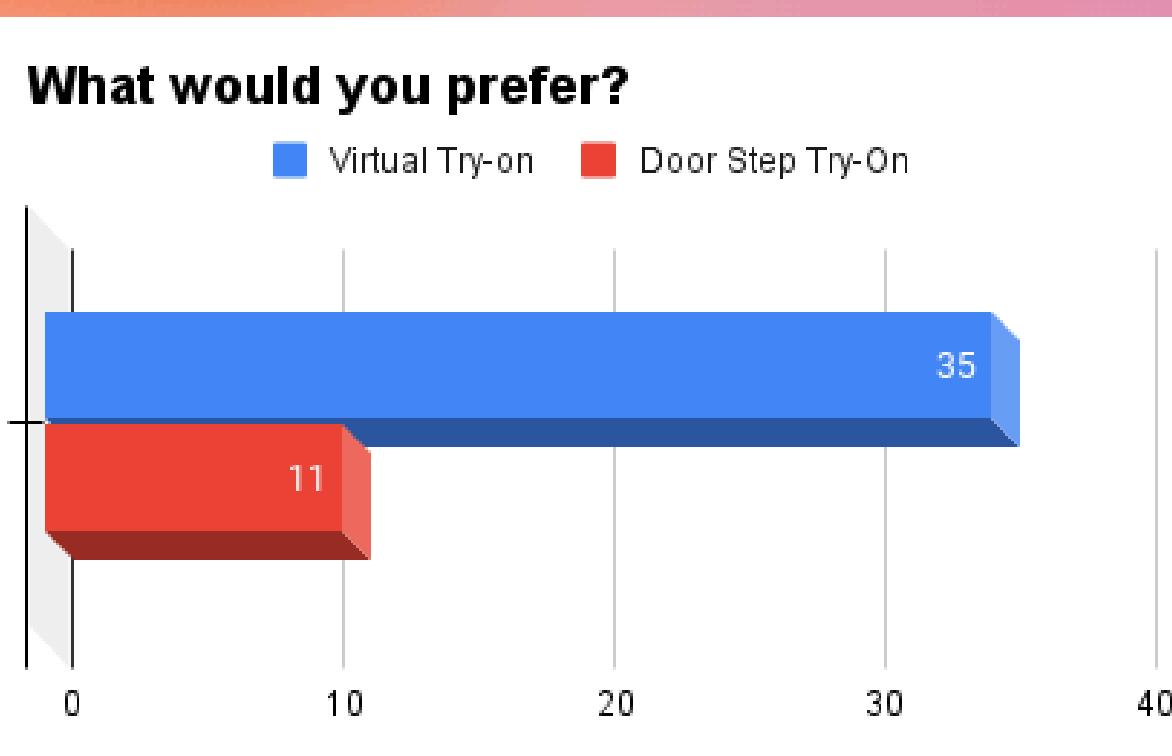
Use Cases: Trend-Centric Recommendation and Engagement on a shopping platform

Gen Z: the digitally native, socially conscious generation

Growing up with social media, Gen Z is constantly influenced by global trends, seeking interactive platforms to shape them.

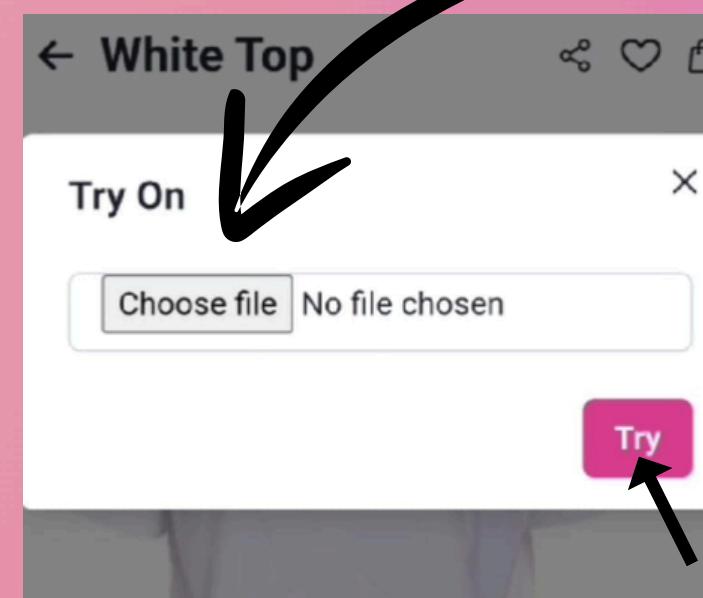
- Without precise color guidance, consumers often struggle to choose clothing and accessories that complement their natural features, resulting in a disjointed appearance and a lack of personal style harmony.
- Fashion often lacks user involvement, highlighting the need for an interactive voting system to make users feel more included in setting trends.
- Due to lack of depth and realism in 2D try-on it hinders accurate assessment of style which often results in increased return rates and a less satisfying shopping experience.

Our Survey Results (Conducted among our peers)



3D Virtual Try On

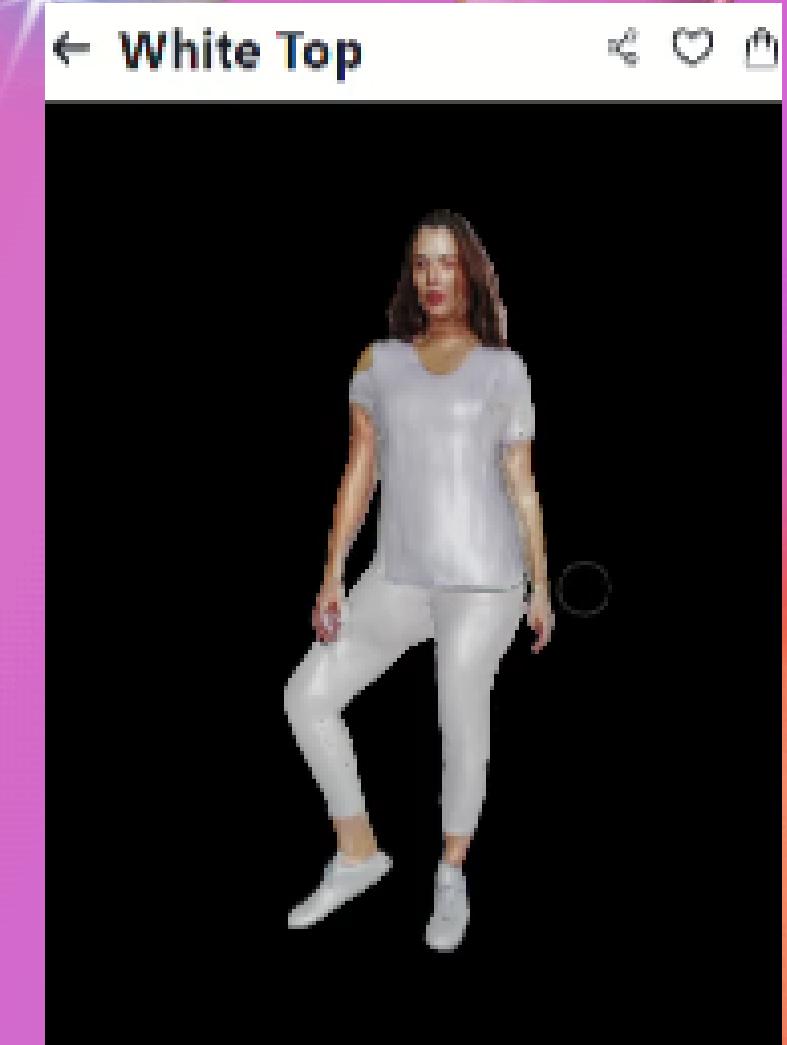
EXPERIENCE A 3D VIRTUAL TRY-ON, VIEWING YOURSELF IN VARIOUS APPAREL FOR A REALISTIC FASHION PREVIEW.



Upload your image from here



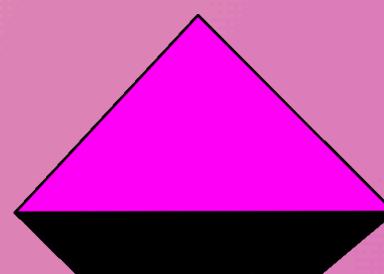
Our advanced *DRM Model* ensures precise alignment and fit for any body type. Our *MTM Model* seamlessly adapts to different poses. And *TFM Model* adds texture details for a realistic final image.



More like this



Click here for 3D Try On

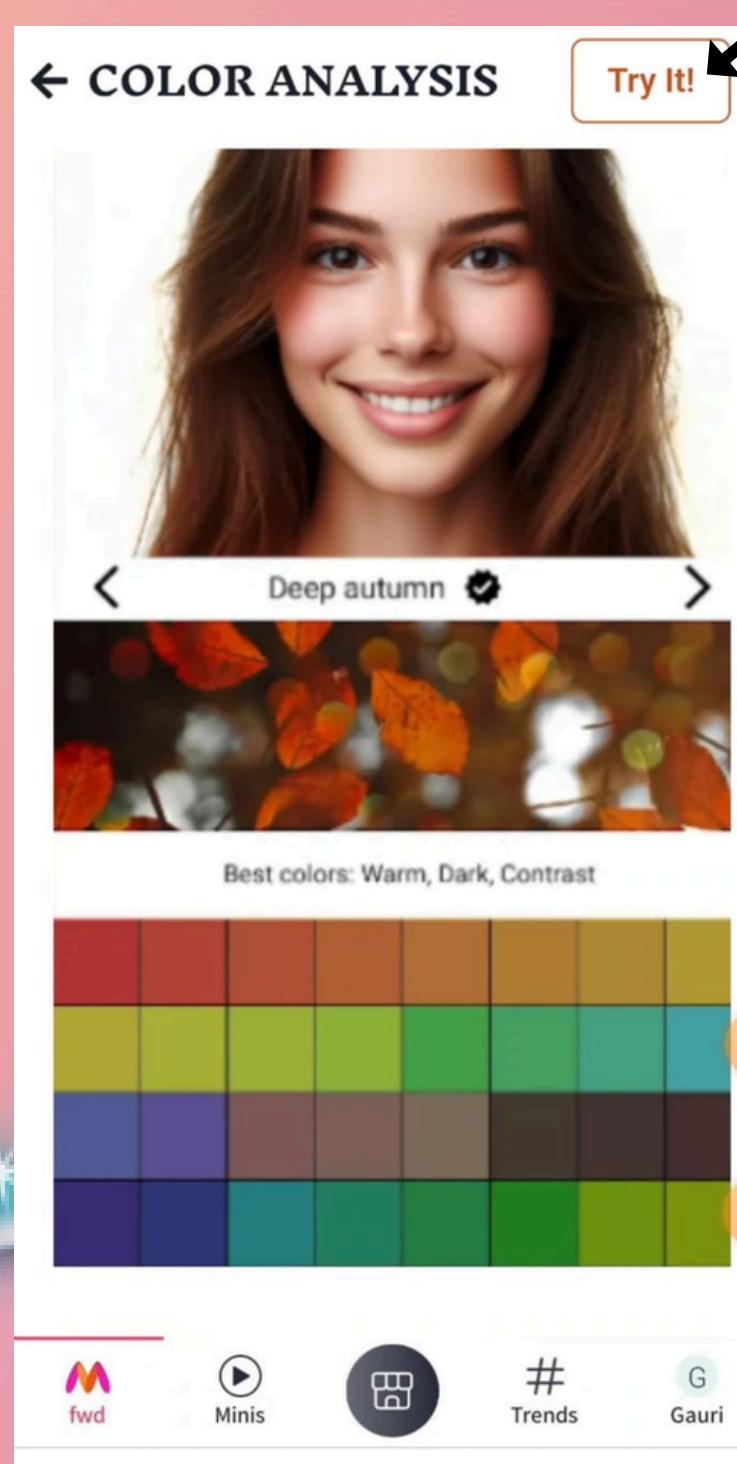


A PLY file is generated and converted to GLTF, allowing an immersive display of the 3D model.

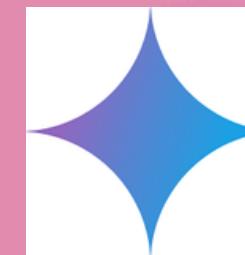
Color Analysis

GET YOUR SKIN TONE ANALYZED TO DISCOVER THE MOST FLATTERING CLOTHING COLORS, PROVIDING YOU WITH PERSONALIZED FASHION ADVICE.

Upload your image from here



Our advanced algorithms such as *MTCNN*, *Dlib*, and *OpenCV*, meticulously analyzes the image



From this, the *Google's Gemini Model*, identifies your ideal seasonal palette



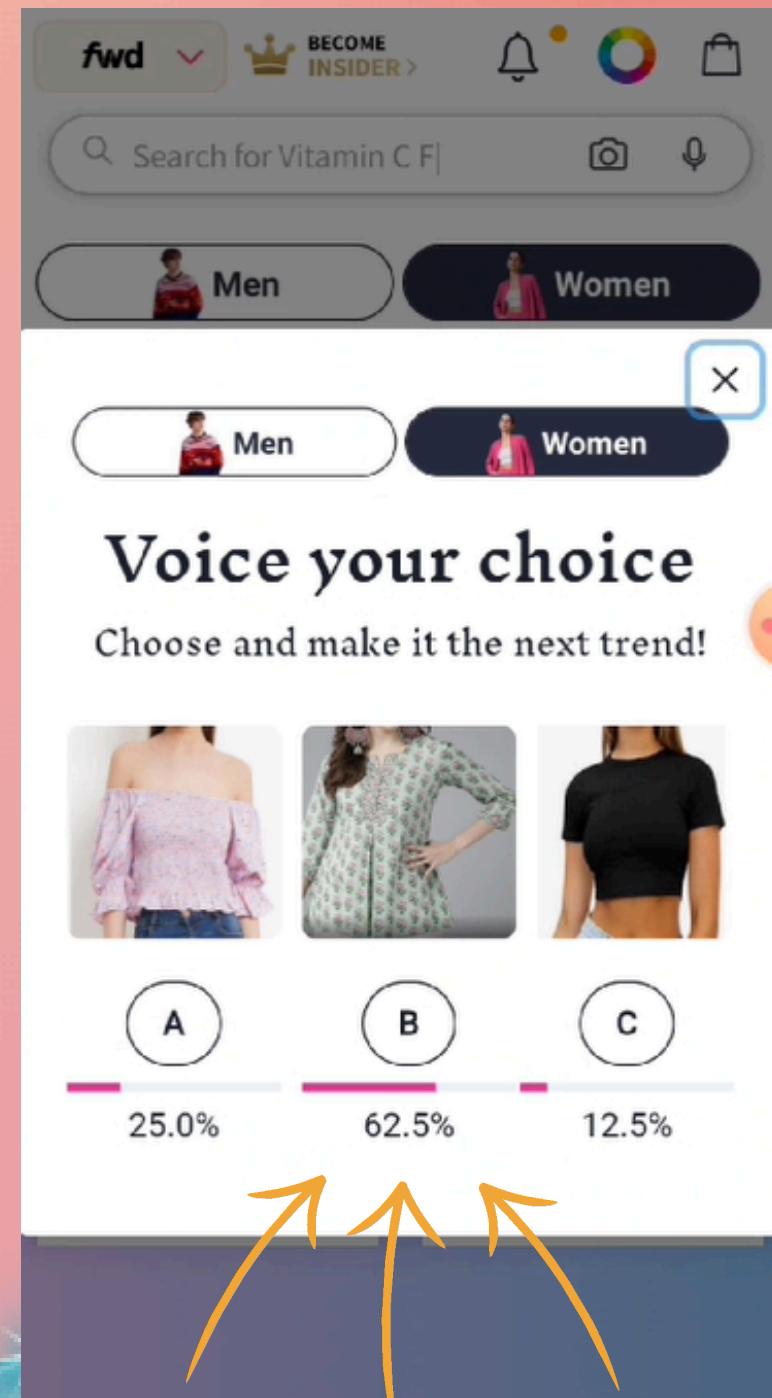
Then, our *ResNet Model* delivers personalized clothing and accessories



The screenshot shows a user interface titled '← COLOR ANALYSIS' with a 'Try It!' button. It features a portrait of a woman with dark curly hair. Below the portrait is the word 'Autumn'. Underneath 'Autumn' is a small image of autumn leaves with the text 'Curated Color Spectrum Just for You!'. Below this are six color swatches arranged in a 2x3 grid: top row is brown, orange, and orange; bottom row is orange, teal, and dark teal. At the bottom are navigation icons: a 'fwd' logo, a play button, a building icon, a '# Trends' icon, and a 'Gauri' name tag.

Voice Your Choice

YOUR VOTES SHAPE THE STYLE - WATCH FASHION
EVOLVE IN REAL-TIME!

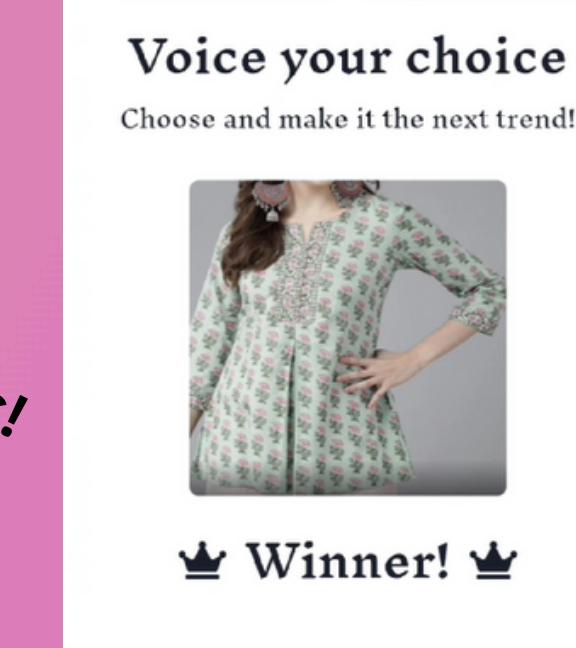


Vote for your favorites to
set the next fashion trend!

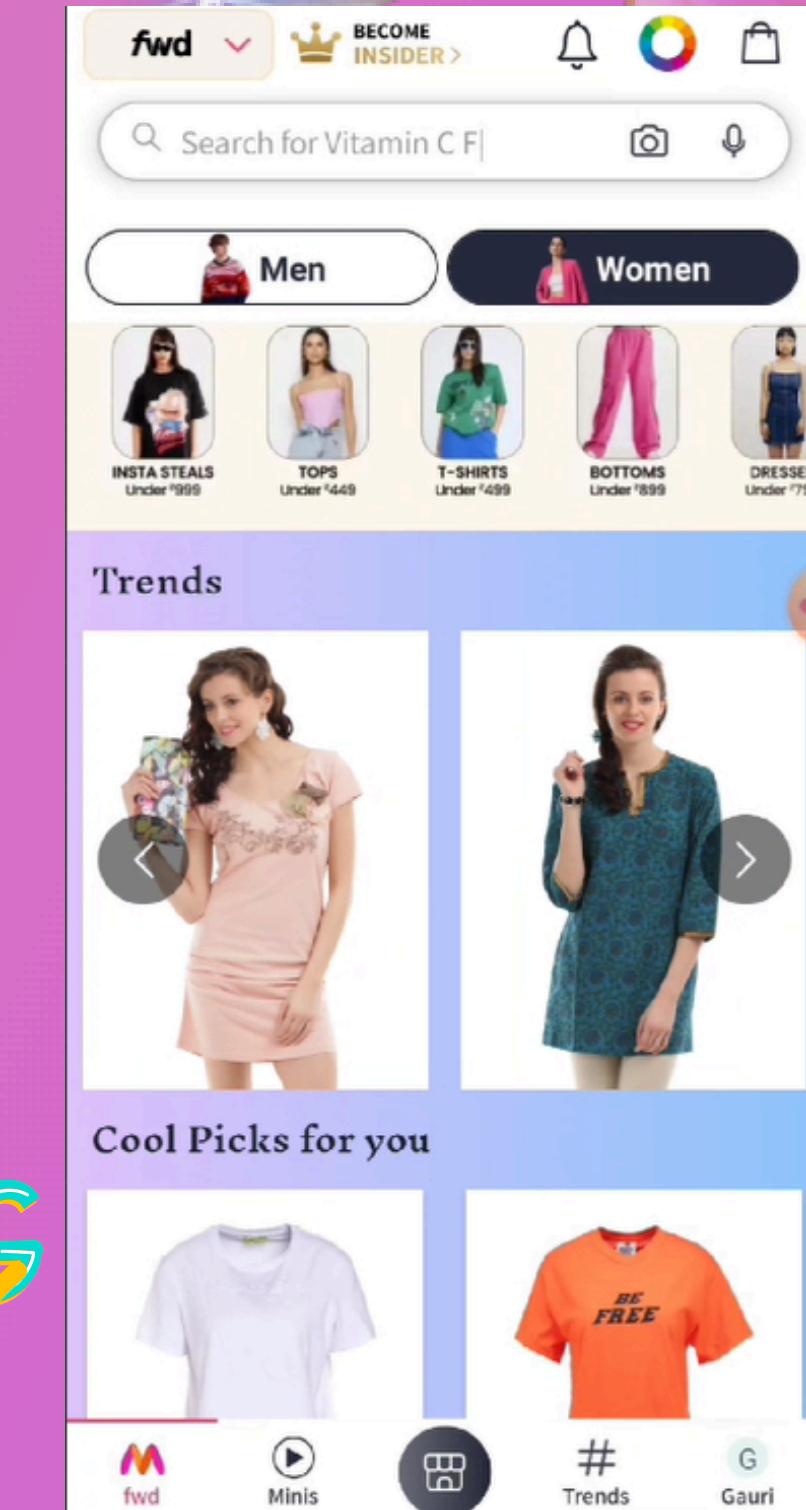
Similar items are recommended using the
K Nearest Neighbors algorithm based on
the extracted features.



Features are extracted from the winning
image using the ResNet 50 model.



Winner!

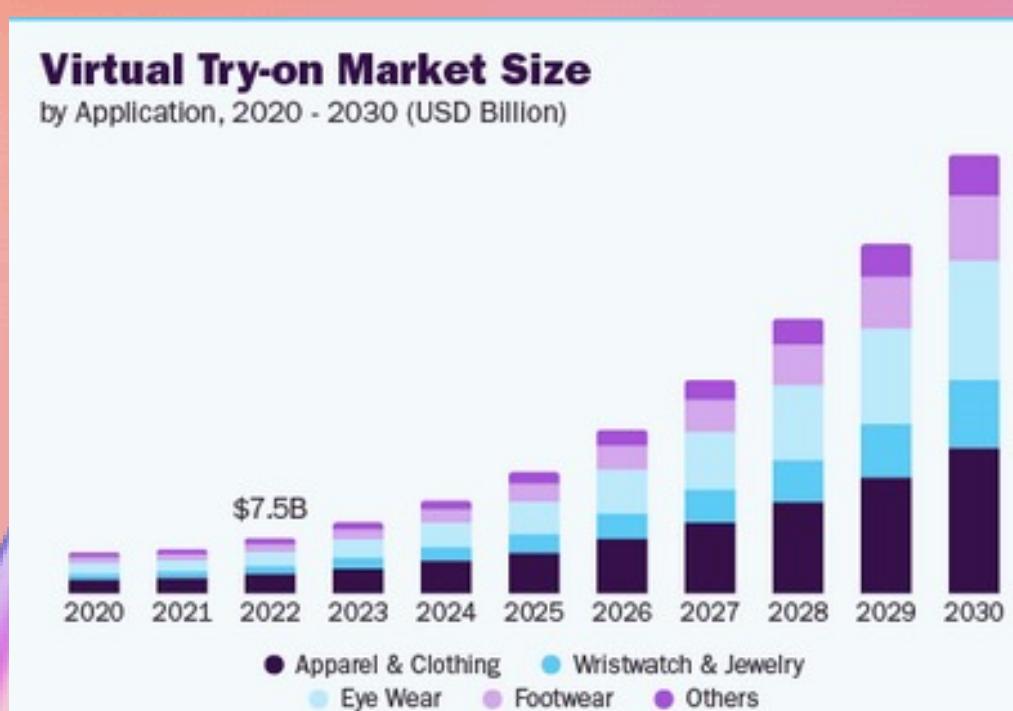


Enhancements to the Current System

Real-Time Global Trends Scraping: Implement real-time scraping of global fashion trends to keep recommendations current and relevant.

Fast Backend Processing: Optimize backend processing to reduce latency and enhance user experience.

Improved 3D Model Realism: Implement accurate back mirroring and fill mesh holes for a more realistic appearance.

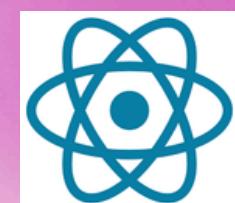


Hair Segmentation: Enhance precision in detecting hair color for better personalised color analysis.

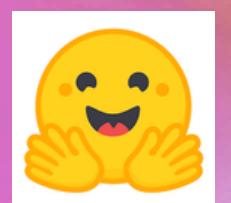
Color Bot GPT: Integrate a GPT-powered color bot for more accurate and personalized color suggestions.

Robust Facial Feature Detection: Ensure accurate detection of all facial features under variable lighting conditions.

Tech Stack



React.js



Hugging Face



Flask



TensorFlow



Selenium



Python



GeminiAI



SQLite

Business Advantages

- Reduced Returns and Higher Sales:** Virtual try-ons reduce uncertainty and returns, increasing confidence and conversion rates.
- Capitalize on Global Trends:** Integrating personal color analysis can capitalize on global trends, enhance personalization, and attract trend-conscious consumers.
- Trend Insights:** Real-time data analysis aids in trend forecasting and inventory management, keeping brands ahead.