Myntra WeForShe Project Design

Introduction

This project aims to enhance the Myntra shopping platform by addressing the fashion needs of the Gen Z demographic. By improving customer engagement and implementing trend-centric recommendations, we utilize real-time data to forecast fast fashion trends. This approach will enable accurate predictions for production and procurement adjustments while fostering a connected and viral audience.

Problem Statement

The primary challenge is to improve engagement on the Myntra shopping platform by:

- Driving customer engagement through data-driven, trend-centric recommendations.
- Leveraging real-time data to forecast demand for fast fashion trends with high accuracy.
- Building engagement constructs that foster connectivity among users.
- Creating a platform that encourages repeated visits by linking fashion-related content and trends.

Objectives

- Implement a natural language search feature that enhances user experience through advanced querying capabilities.
- Categorize products on Myntra based on aesthetic attributes using a detailed taxonomy.
- Employ machine learning algorithms for tagging and classifying fashion attributes.
- Automate the process of gathering real-time fashion trends and preferences from social media platforms.

Solution Overview

1. Natural Language Searching

Develop a natural language processing (NLP) feature that allows users to perform semantic searches based on their preferences and aesthetics, thus enhancing the overall shopping experience.

2. Aesthetic-Based Categorization

- **Attribute Identification**: Each garment is categorized into seven critical attributes:
  - Neckline Type
  - Sleeve Type
  - Waist Fit
  - Print Type
  - Lower Type Length
  - Fit Type

    - Color
- **Attributes Taxonomy**: A comprehensive attributes taxonomy is developed to categorize products based on internet trends, aesthetics, niches, occasions, holiday trips, and influencer styles. Each product is tagged in a structured format:
    - Color Palette
    - Fit Type
    - Print Type
    - Lower Type
    - Sleeve Type
    - Neckline Type

3. Mapping and Tagging

- Each product ID is mapped to relevant attributes according to the taxonomy.
- Utilize advanced image processing and machine learning techniques to tag and classify images sourced from various platforms.

4. Aesthetic Definition

- Define each aesthetic by its dominant attributes. For instance, the "Barbie" aesthetic is characterized by the color pink, so products tagged with the pink attribute are classified under this aesthetic.

Data Collection

- **Current Data Sources**: Data is sourced from Myntra's existing product database and user interaction metrics.
- **Future Data Sources**: Implement automation scripts to gather real-time data from platforms such as Pinterest, Instagram, Twitter, and fashion blogs. This will include:
    - **Web Scraping**: Use web scraping techniques to extract trend-related content and user-generated data.
    - **API Integration**: Leverage APIs from social media platforms to obtain real-time insights on trending aesthetics, hashtags, and fashion influencers.

Data Analysis

1. Machine Learning Techniques

- Deploy supervised and unsupervised machine learning algorithms to analyze image data, identifying and classifying aesthetic attributes based on user interactions and market trends.
- Implement natural language processing for sentiment analysis on social media discussions related to fashion trends.

2. Data Visualization

- Utilize advanced data visualization tools to represent trend data and user engagement

metrics, facilitating informed decision-making processes.

Future Objectives

- **Real-Time Data Automation**: Develop a robust data pipeline that automates the extraction and processing of real-time fashion trend data from various social media platforms.
- **Dynamic Trend Analysis**: Use machine learning to analyze trends in user preferences, enabling real-time updates to product categorizations and recommendations.
- **Enhanced Predictive Analytics**: Integrate predictive modeling to anticipate shifts in fashion demand, allowing for agile production and procurement strategies.

Results

The expected outcomes of this project include:

- Increased user engagement on the Myntra platform through personalized shopping experiences driven by data insights.
- Enhanced product discoverability based on sophisticated aesthetic categorizations.
- A more dynamic and responsive platform that adapts to real-time fashion trends and user behaviors.

Conclusion

This project leverages natural language processing, machine learning, and real-time data collection to create a responsive shopping experience for Gen Z consumers on Myntra. By focusing on aesthetic attributes and user preferences, we aim to deepen connections with our audience and ensure their continued engagement with the platform.

Next Steps

- Develop and implement the natural language search feature and automated data pipelines.
- Finalize the attributes taxonomy and begin tagging products accordingly.
- Train the machine learning model for image recognition and aesthetic classification.
- Launch a pilot program to test the new features and gather user feedback for continuous improvement.