Clothing Decision Benchmark 穿搭寶

PRESENTED BY TEAM12 短髮容易長髮ㄋㄢˊ

感情・2/22

男友穿搭太醜

隨便舉例一個： 情人節穿搭 ... 除了讓我覺得很醜之外其實也會很失落

103 75 51

Clothing Decision Benchmark 穿搭寶

AI Dressing Recommendation System

Not sure of your style?

ML Model can help.

Don't know how to dress?

Our Model, your teacher.

Build a special you.

Personalized Recommendation System

How about a?

Live Demo

How we did that ?

Define the problem

How we did that ?

Recommend Good outfits
that users might like

Generate Text-based Guide

Image Retrieval

Recommend Good outfits

Which one is the most similar picture?



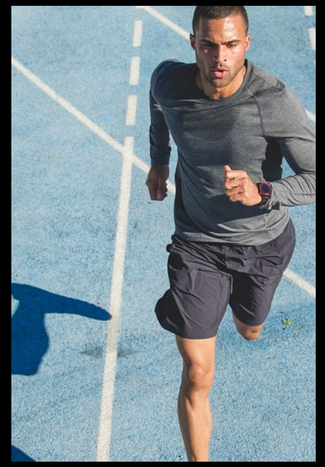
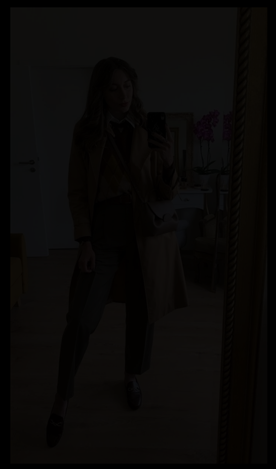
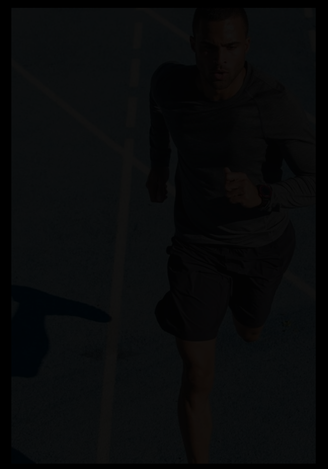



Image Retrieval

Recommend Good outfits

Which one is the most similar picture?



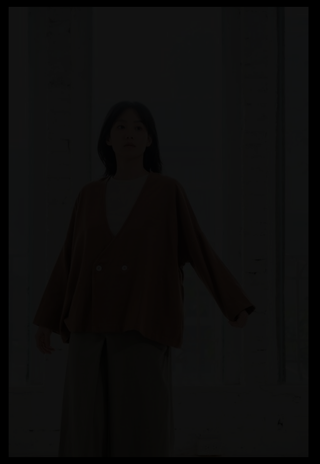


Image Retrieval

Recommend Good outfits

By simply tagging clothes?

Good idea ! But too simple..

Image Retrieval

Recommend Good outfits

Our method :

Using FashionClip

To do Feature Extraction

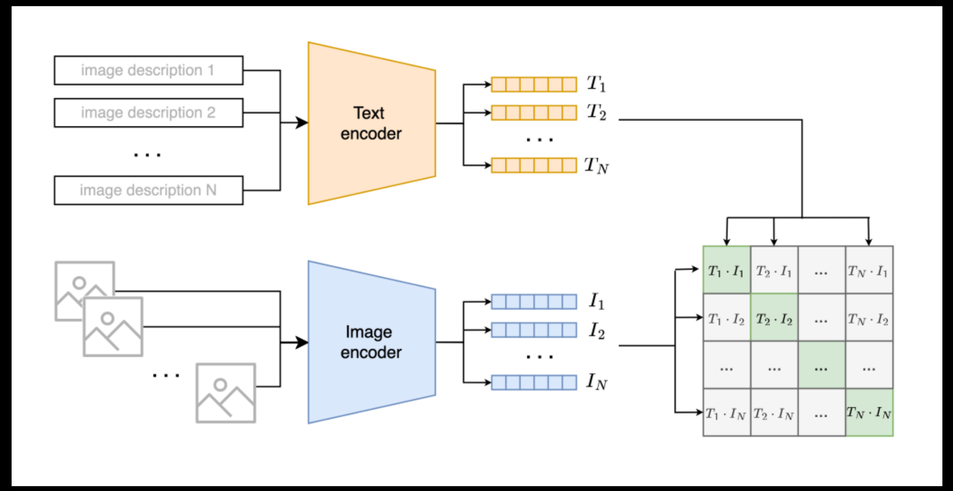
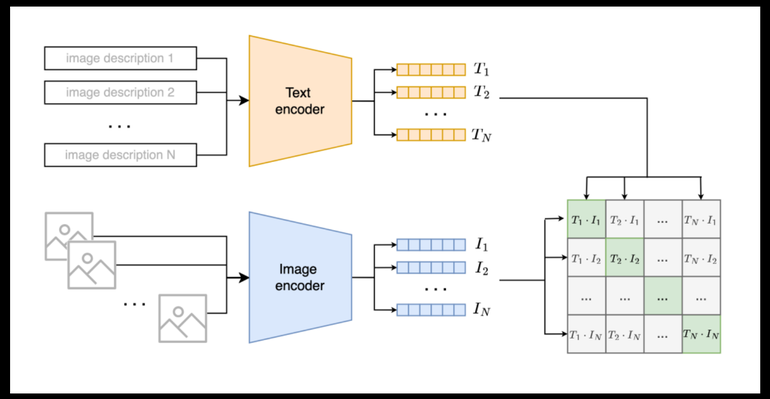


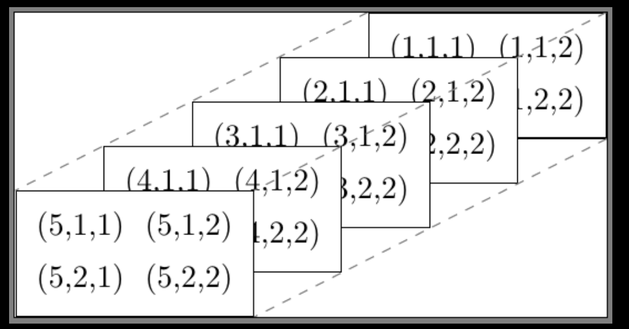
Image Retrieval

Recommend Good outfits

Using FashionClip

To do Feature Extraction

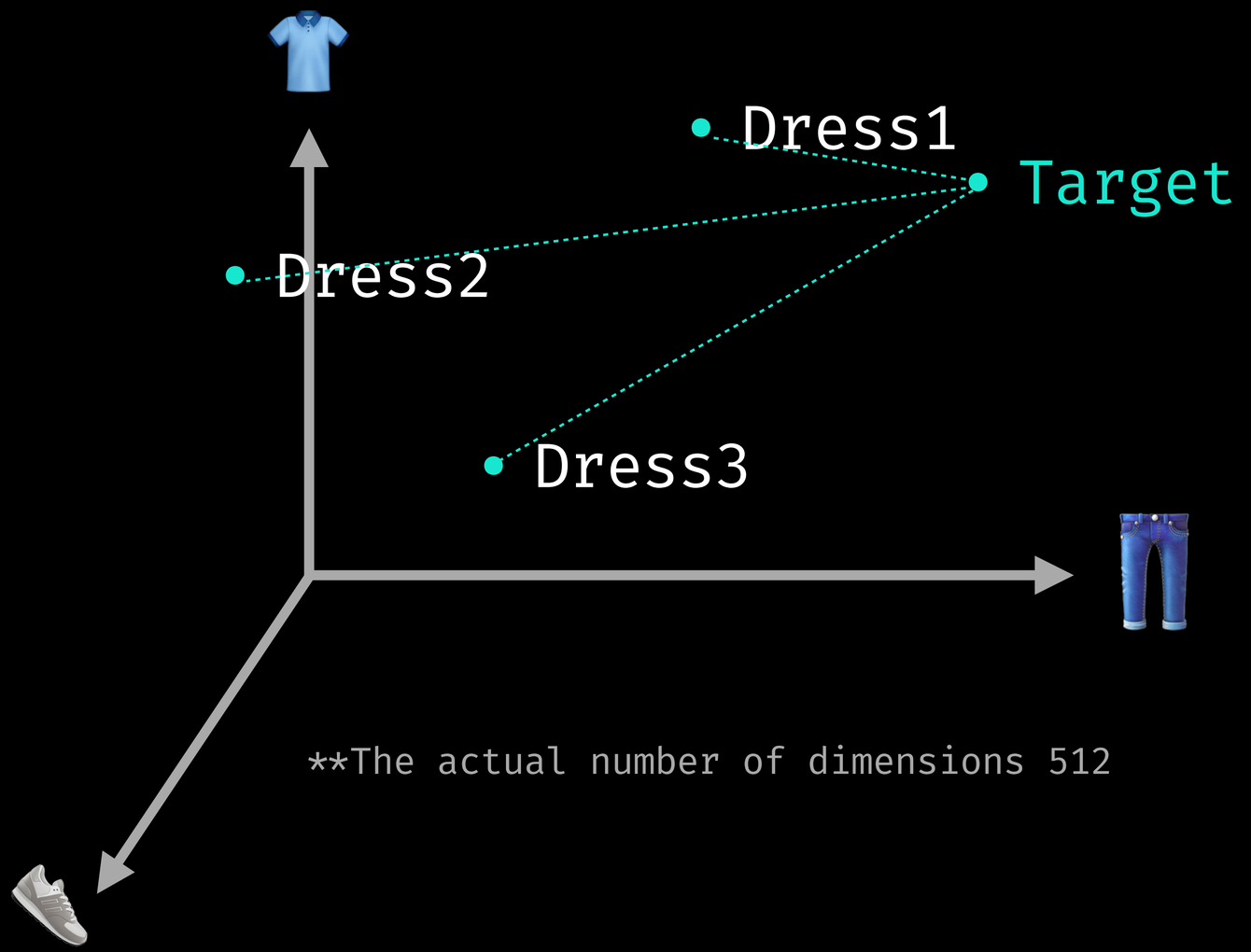




Features of the outfits photo

Image Retrieval

Recommend Good outfits



Dress1 is the closest one
To the target

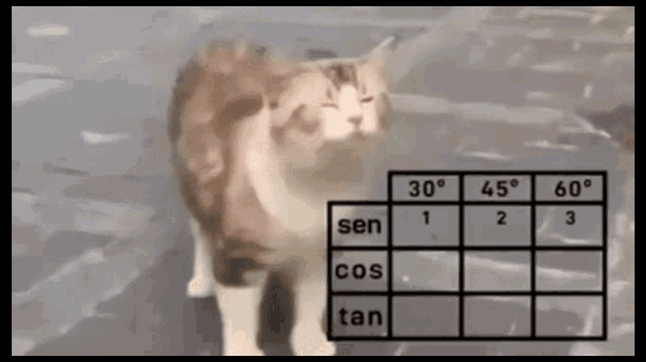
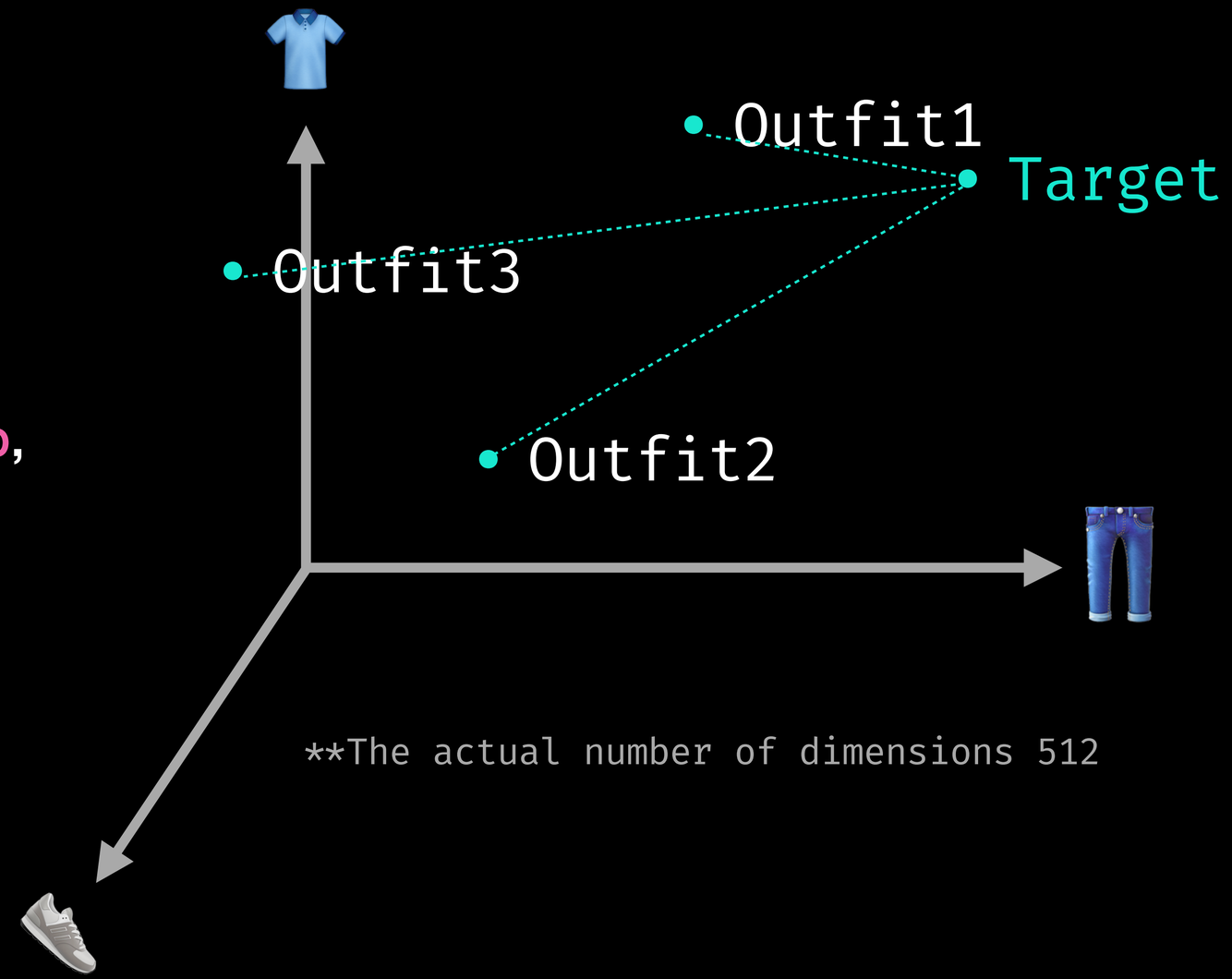


Image Retrieval

Recommend Good outfits

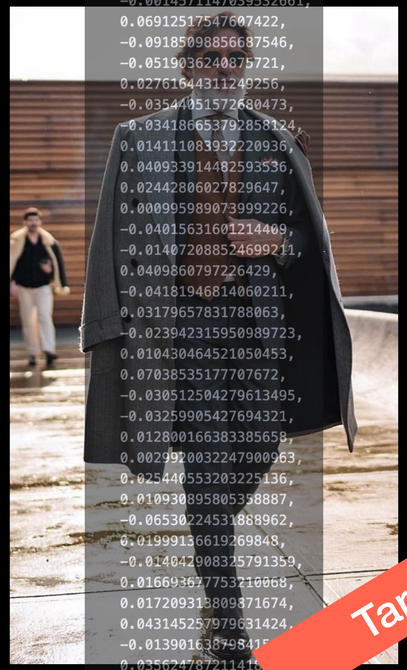
By comparing the distance of each dress in the 512-dimensional feature vector that extracted from FashionClip, we can know which photo is most similar to the target.



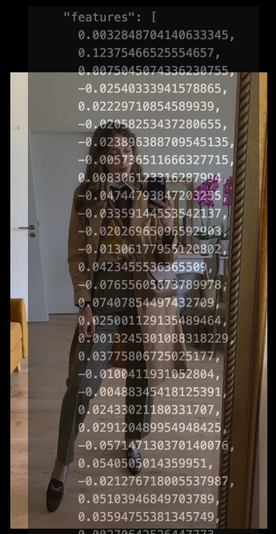
Note:
We also use some techniques to optimize the performance of FashionClip.
For example : Freezes FashionCLIP, adds mapping layer (512D→64D) to focus on fashion pairing semantics.

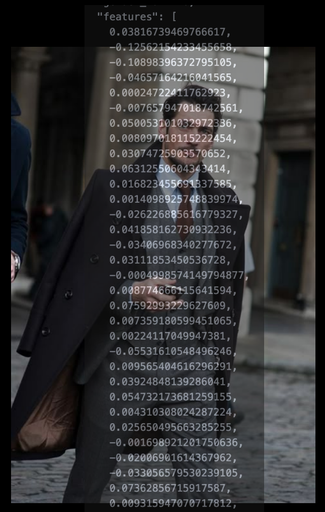
Image Retrieval

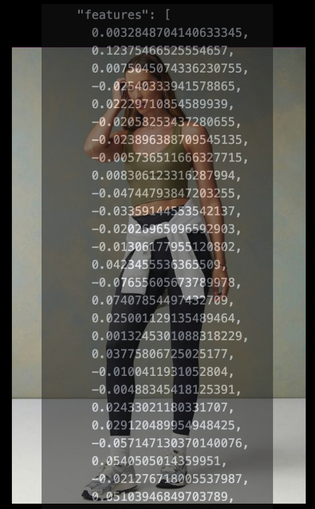
Recommend Good outfits

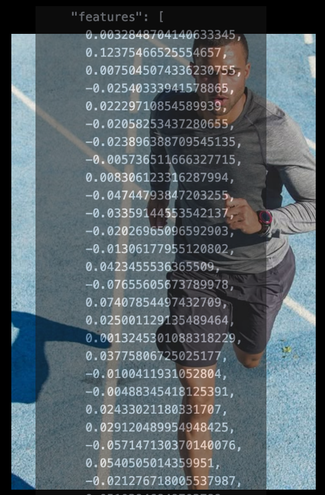


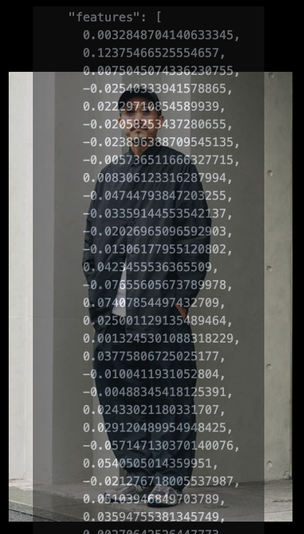
Which one is the most similar picture?











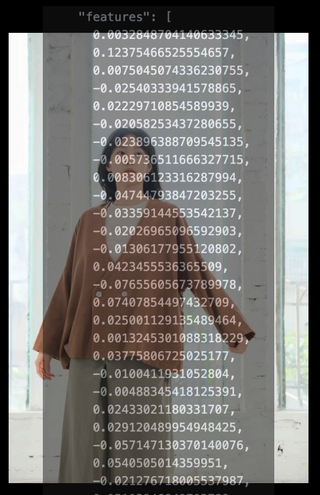
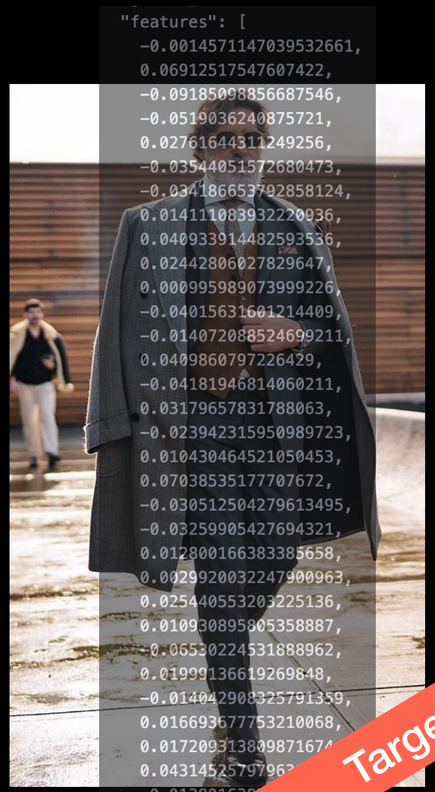


Image Retrieval

Recommend Good outfits



Target

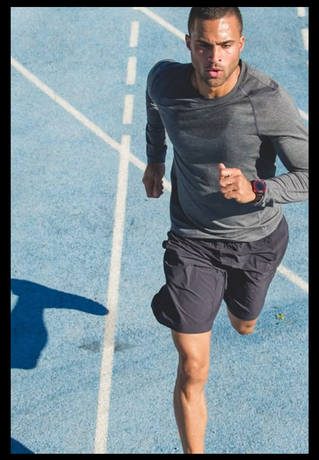
Closest!

Image Retrieval

Recommend Good outfits

Use "outfit style" to enhance the stability of recommendations


British

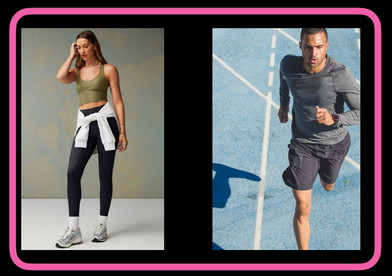
Athletics


Japanese

Image Retrieval

Recommend Good outfits

British



Athletics

Japanese

Artsy

Preppy

Casual

Goth

Kawaii

Kawaii

Street

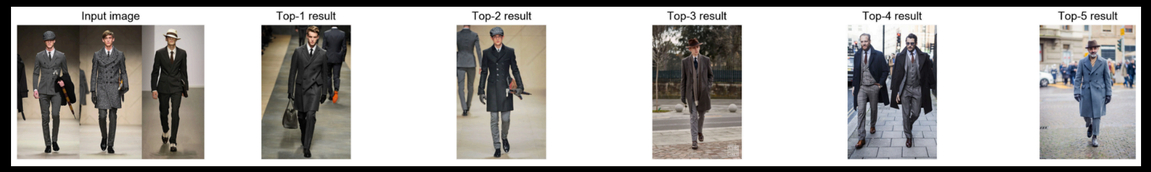
Vintage

Manually collect photos of 11 pre-categorized styles

Image Retrieval

Recommend Good outfits

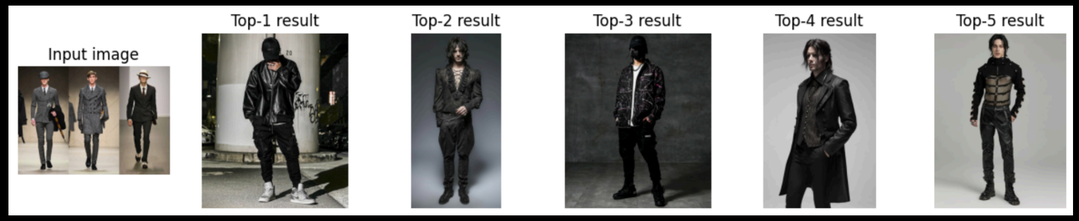
Our Method: 84% ACCURACY



Optimized FashionCLIP

Style Pre-classified

MMFashion: 42% ACCURACY



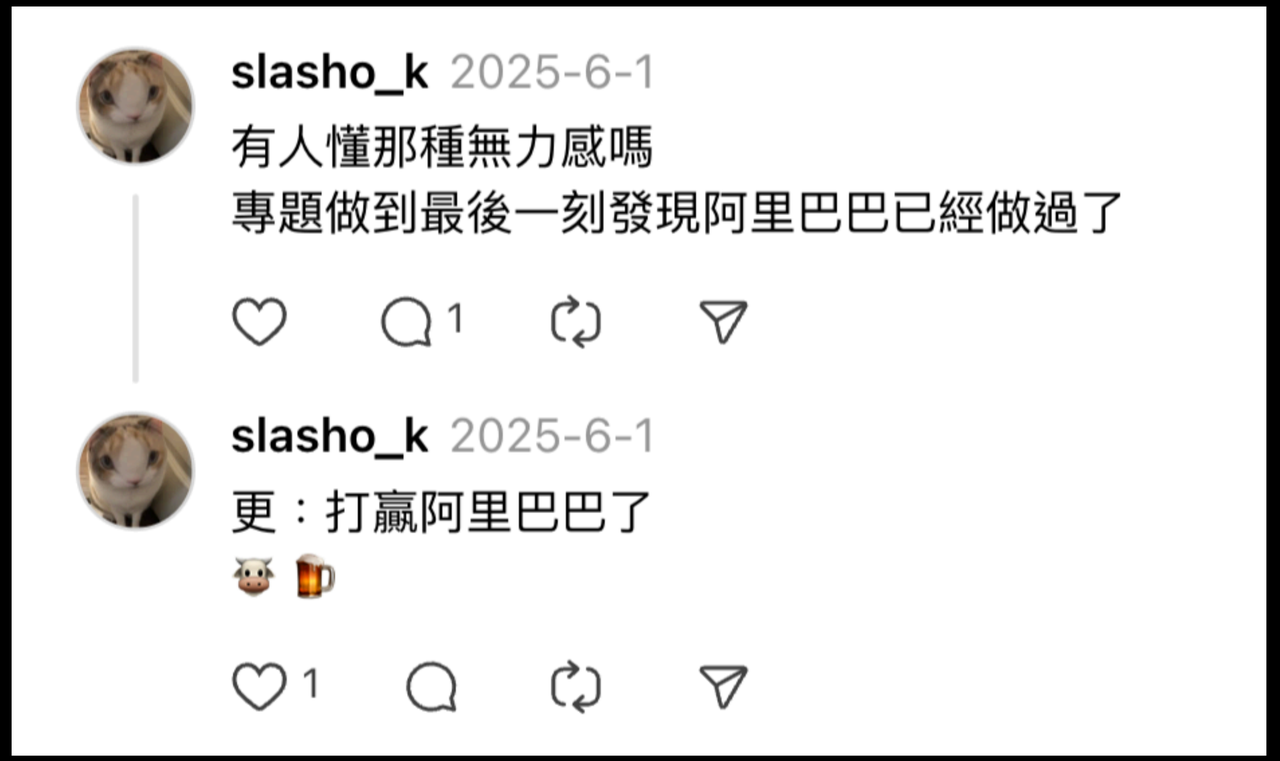
open-mmlab/
mmfashion

Open-source toolbox for visual fashion analysis based on PyTorch

5 Contributors · 12 Used by · 1k Stars · 294 Forks

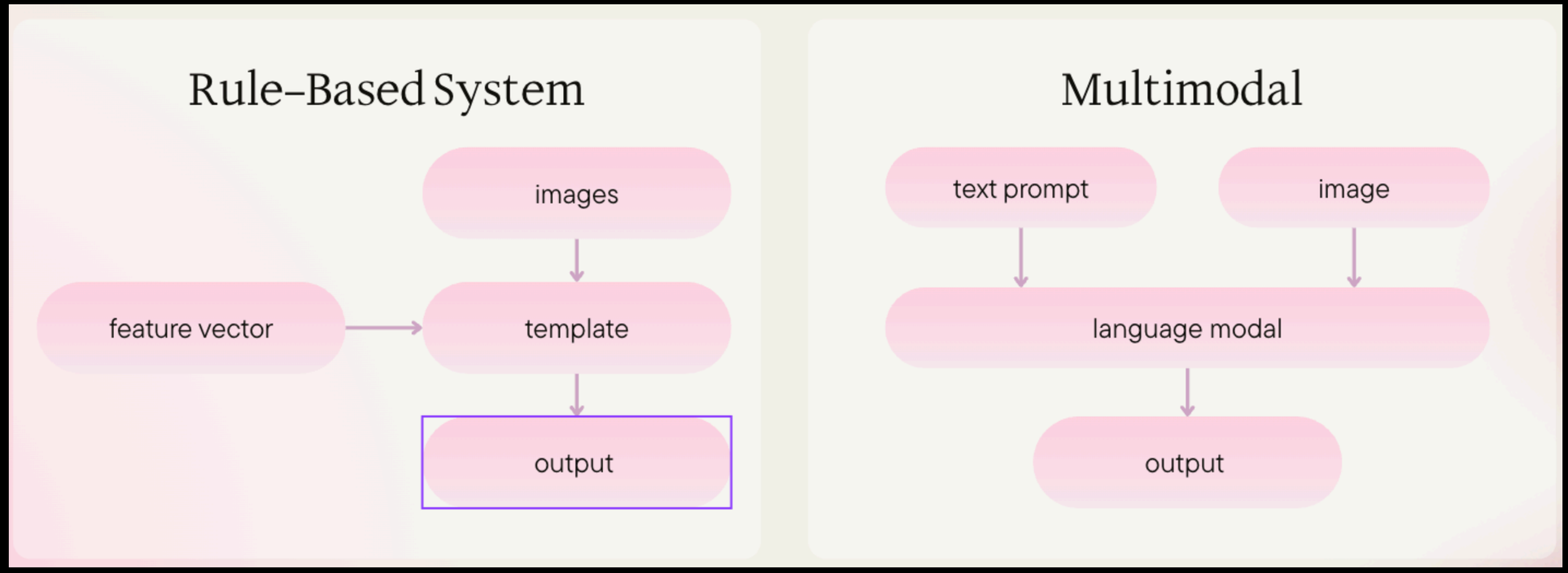
Image Retrieval

Recommend Good outfits



Methods

Generate Text-based Guide



Results

Generate Text-based Guide

Rule-Based System (from FashionCLIP features)

```
      - FashionCLIP: 🎯 FashionCLIP 詳細特徵比較分析 (目標風格: STREET)
🔄 顏色: 您目前的blue clothing可以考慮調整為black clothing來更符合目標風格 (目標特徵中等: 0.64)
🔄 服裝類型: 建議將jacket替換為jeans以達到更好的效果 (目標特徵中等: 0.65)
✅ 風格: 很好！您的casual style與目標完全匹配 (相似度: 0.98)
✅ 圖案: 很好！您的solid color與目標完全匹配 (相似度: 1.00)
⚡ 配飾: 方向正確但可以更突出belt特徵
🔄 鞋類: 鞋類建議從casual shoes換成boots (目標特徵中等: 0.58)
✅ 材質: 很好！您的denim material與目標完全匹配 (相似度: 1.00)
🔄 版型: 版型建議調整為oversized clothing而非loose fitting (目標特徵較弱: 0.48)
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Local Multimodal (LLaVA)

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llava 穿搭分析：
      1. 上衣改變
將目前休閒牛仔外套改為皮革外套，以提升酷炫、街頭感。
搭配內搭換成帽T，創造多層次且年輕的效果。

2. 下半身穿搭
牛仔褲保持寬鬆版型，但可嘗試淺色系牛仔褲，增加視覺對比感。

3. 配件轉變
取消黃色托特包，換成運動感的棒球帽。
將鞋子從皮質感的休閒鞋轉換成更具街頭運動感的球鞋。

4. 顏色搭配
從深藍、黃、白色調轉變成更簡單的黑、白、淺藍色調，保持整體簡約且明顯的街頭時尚感。
```

Appendix:
Personalized recommendation system

The biggest problem with our topic:

Everyone has a different definition of fashion classification/good-looking .

Our Solution:

- Personalized style customization:
  Choose your favorite dressing style

- Learn users' preference weights for different tag combinations through sliding behavior

3Q