

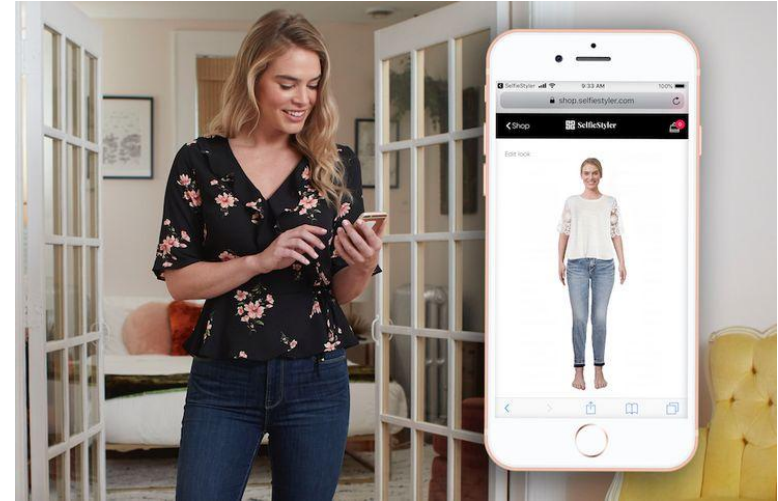
Virtual Stylist

Problem - This summer look is so gorgeous!
how would it look on me?

Solution - A virtual stylist platform that would
recommend similar products and let
customers try on these items digitally

Approach -

1. Recommend similar fashion products
2. Virtual Try-On based on those products



Prior Work

ShopLook -

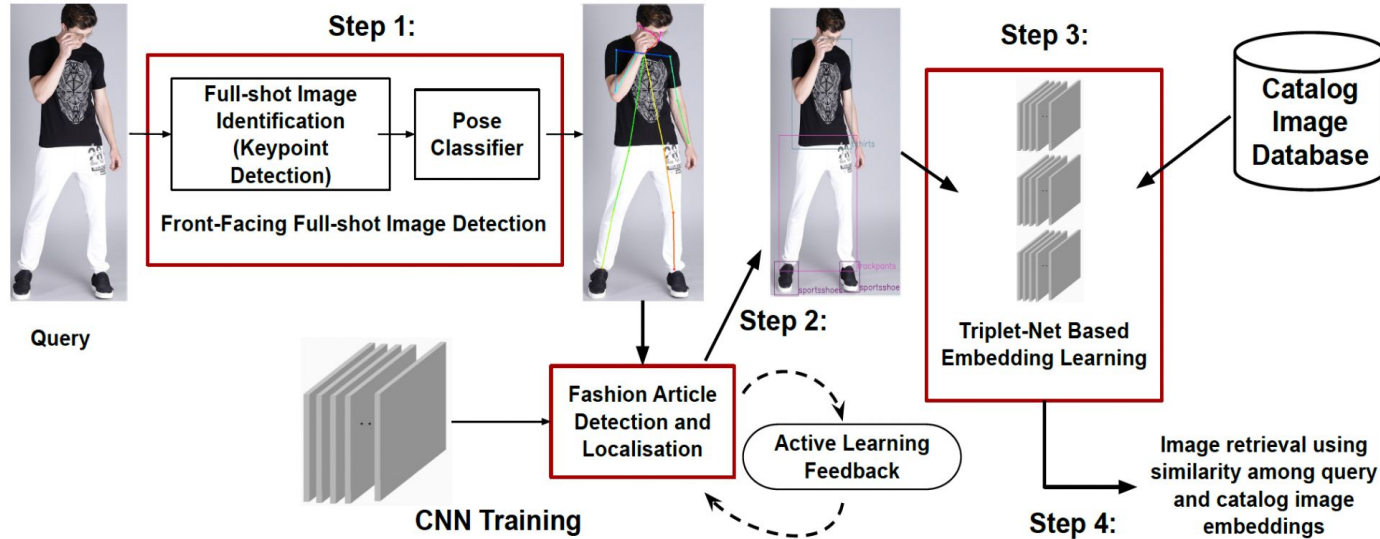
- Addresses the challenging problem of recommending similar fashion products
- No TryOn

TryOnGAN -

- A StyleGAN-based interpolation optimization algorithm for photo-realistic try-on
- No Recommendation



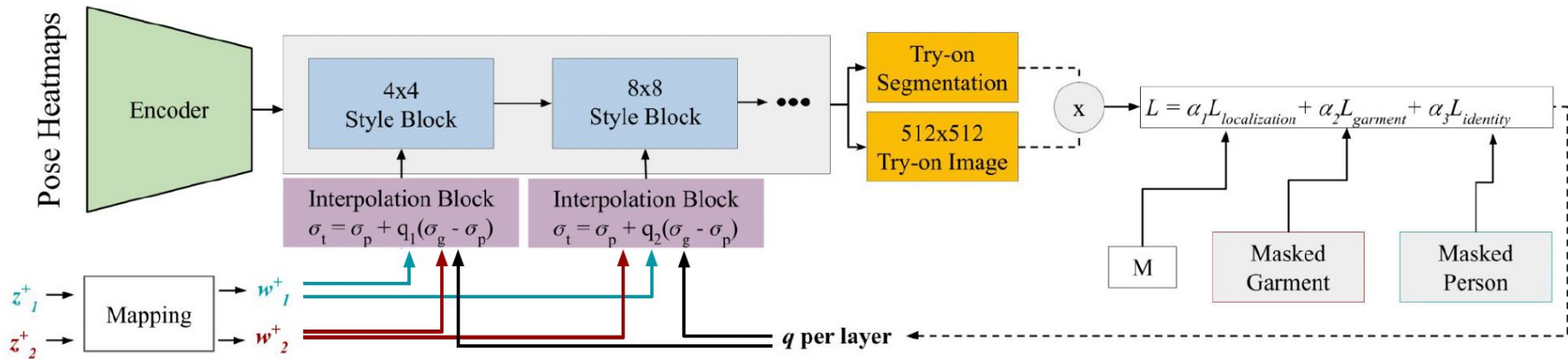
Method - Recommender Module



- Pose classifier
- Fashion Article Detection and localization
- Embedding Generation for Article Types
- Image Retrieval

Ref - Abhinav Ravi, Sandeep Repakula, Ujjal Kr Dutta, and Maulik Parmar.
Buy me that look: An approach for recommending similar fashion products, 2021

TryOn Module



- PostNet- detects pose key points
- Generator(style blocks) - produces segmentation image and an RGB image
- Interpolation blocks- interpolates between the latent codes using the interpolation coefficients
- The loss function - localization of fashion items, reproducibility of garment, and person's identity

Outcome



Look image



Recommended Product image



Person image



Generated image



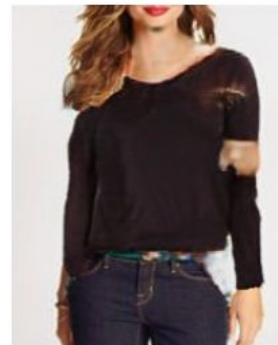
Look image



Recommended Product image



Person image



Generated image

Punch Lines

→ Challenges

- ◆ disentanglement of person identity like skin color, body shape and product image
- ◆ skin generation for shorter length of sleeves of product image
- ◆ pre-processing the recommended image to feed that into try-on module

→ Application -

- ◆ e-commerce giants like Amazon, Macy's, Walmart, Gap, Nordstrom, etc. to provide customers with a platform to try out different fashion looks, outfits based on a customer image and a style image
- ◆ end-to-end virtual recommendation based try-on platform