

Saw a shirt you  
love, want to find  
similar items?

Or maybe even try it on  
in front of your  
computer?



PoshNet

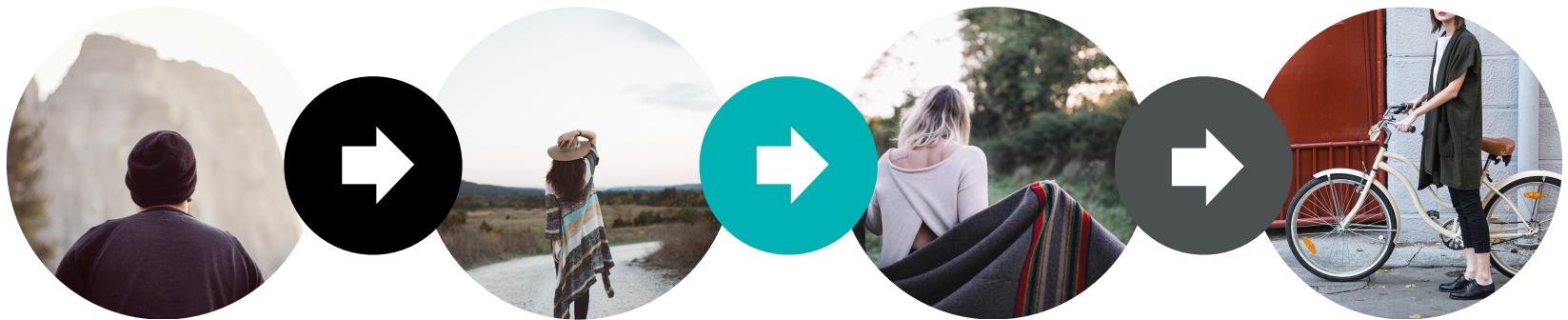


Your personal virtual closet

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2018.3.29

# PoshNet



## Objective

1. Identify the category of a clothing item
2. Recommend similar items based on style
3. Visual display

## Data

MVC data set  
Scraped Zappos &  
Zara  
over 110,000  
images

## Algorithms

CNN based classifier  
Style Recommender  
Visual display OpenCV

## Demo

D3 & Flask

# CNN image classifier

Classify over 110,000 images into 5 categories



Dress



Top



Sweater



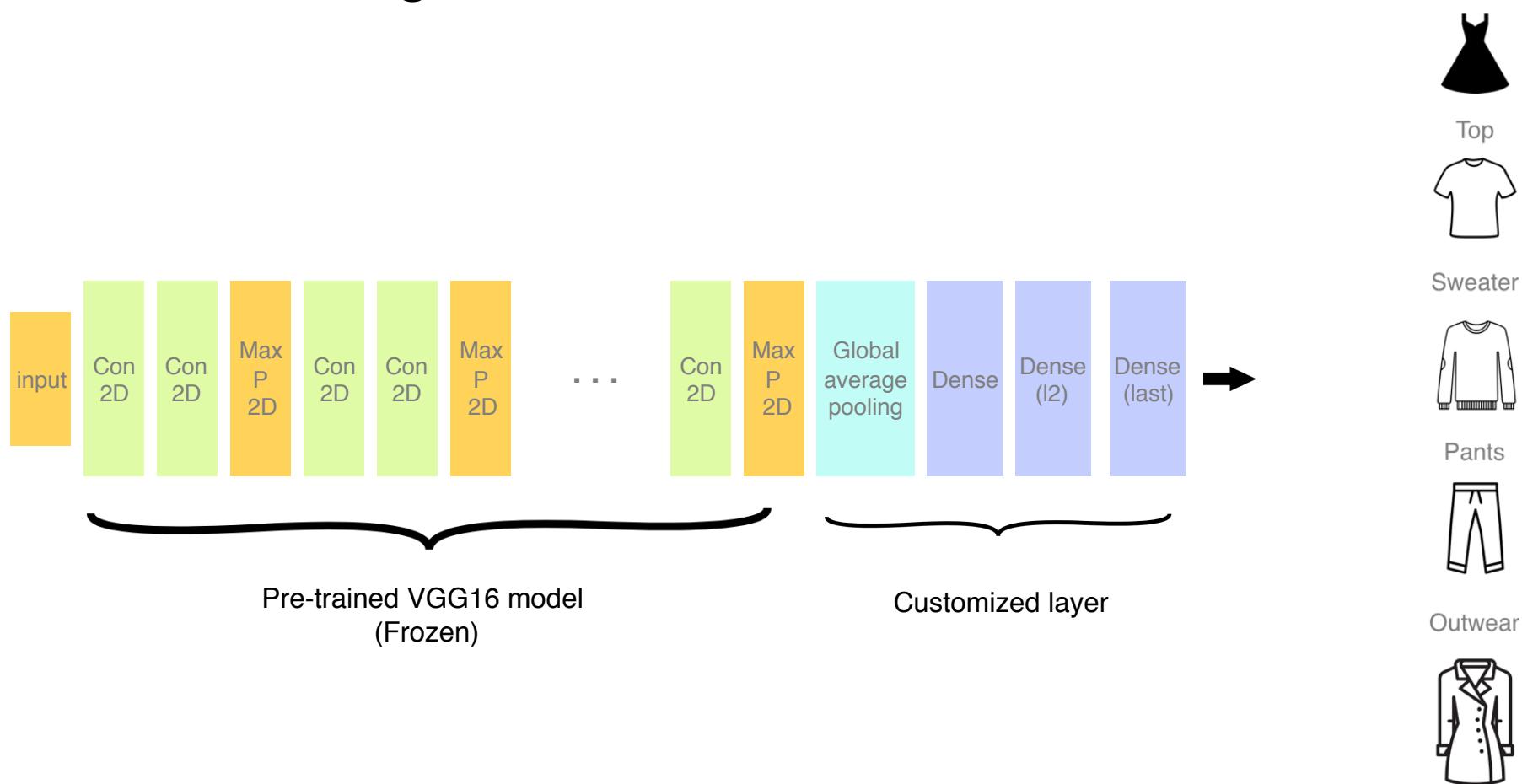
Pants



Outwear

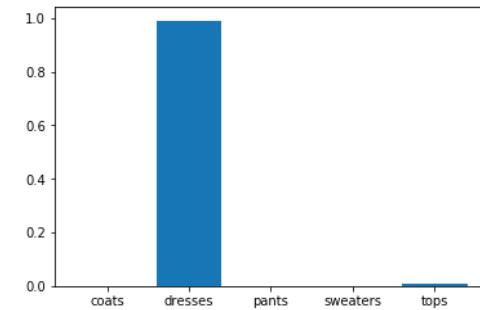
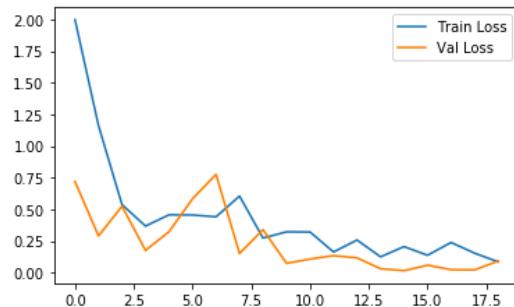
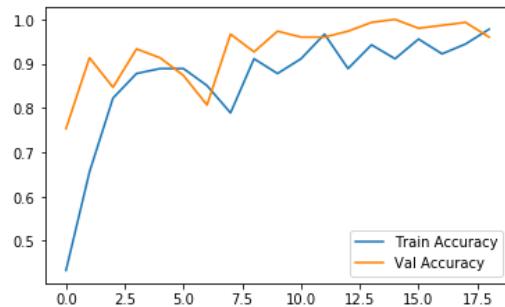


# CNN image classifier



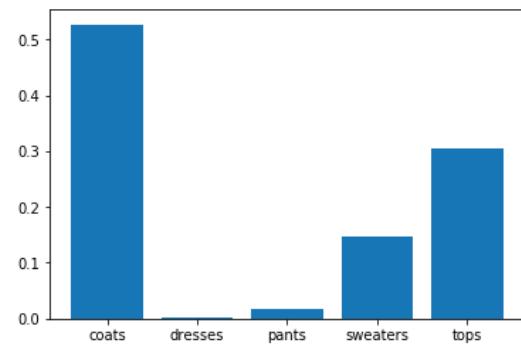
# CNN image classifier

98% training accuracy  
96% test accuracy

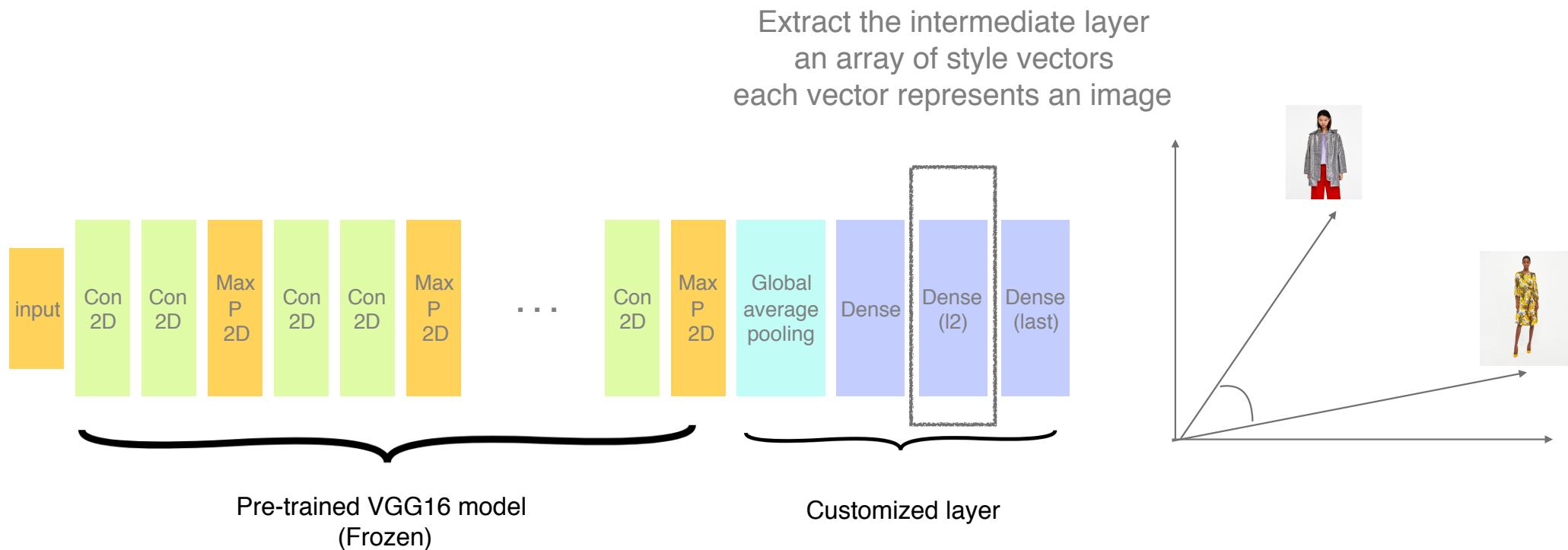


# CNN image classifier

98% training accuracy  
96% test accuracy



# Style recommender



# Style recommender



similar coats



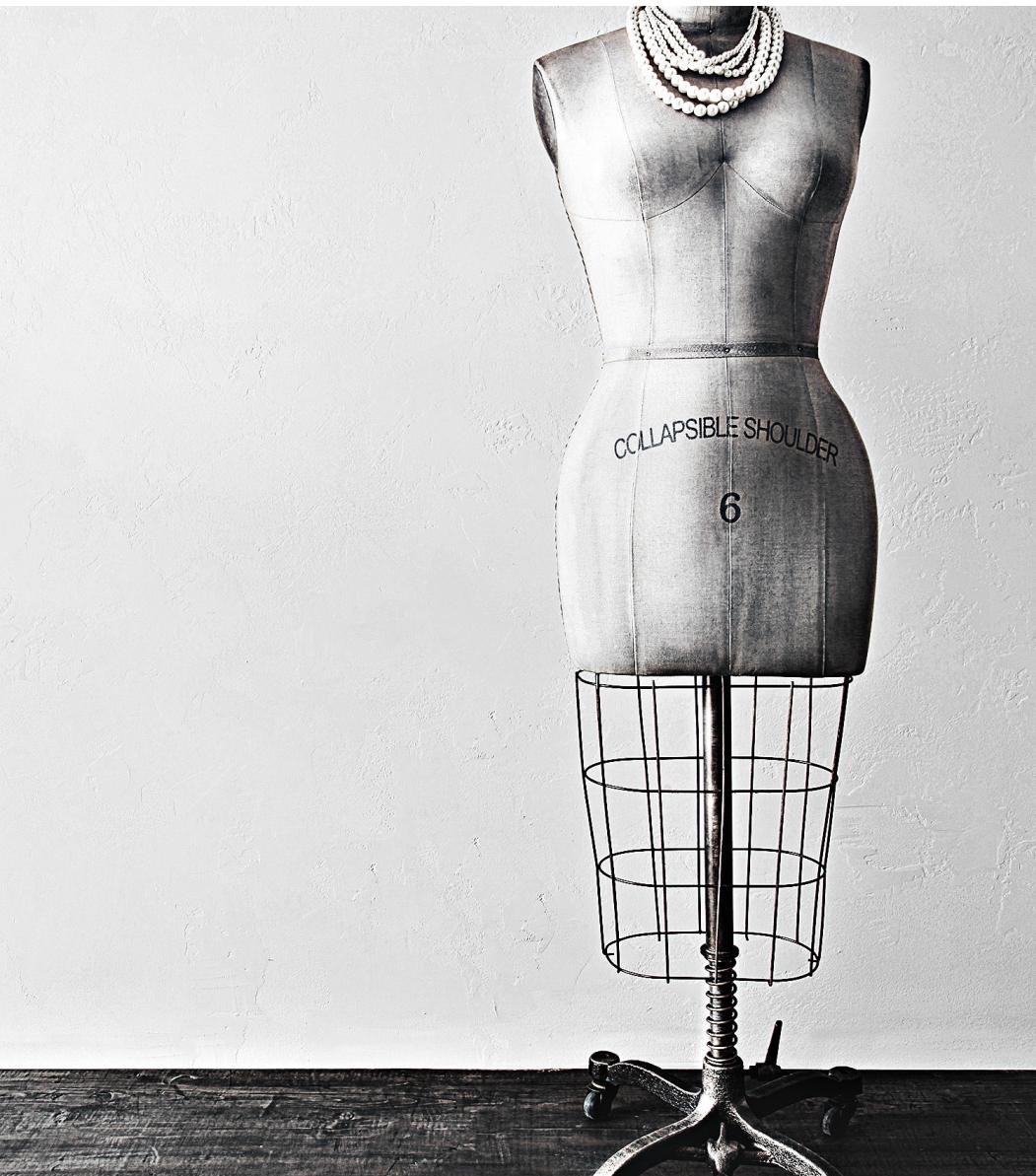
Input image

similar tops



# Visual display

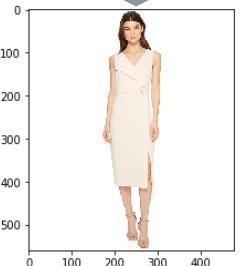
with OpenCV...



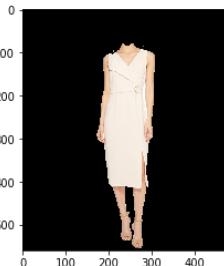
# Visual display

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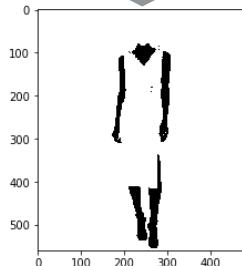
1.  
Input



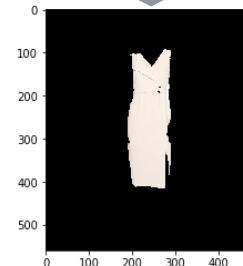
2.  
Grabcut model



3.  
Create skin mask  
based on pixel  
range

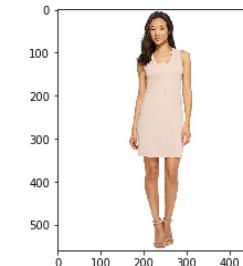


5.  
Remove noise  
Change BG color

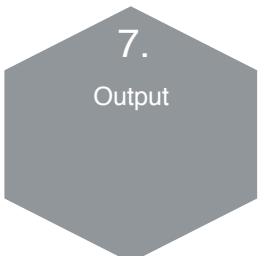


4.  
Apply skin mask  
to remove skin  
color

6.  
Overlay image



7.  
Output



# Demo

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Similar dresses

Take me to [undefined web page](#) →



# Thank you!



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