



WHAT ARE THOSE!?

Sneaker Brand
Classifier &
Recommender



**If someone wants to know who makes my
shoes, they have to take them off my feet & look inside.**



Methodology ✕

BeautifulSoup 4

Scraped sneaker websites for images



Selenium

Interacted with sites by scrolling & clicking on next page



CNN

- VGG16
- Image Augmentation
- Model drives recommender



Recommender

Sample of suggested sneakers





17,000 ×

Sneaker images scraped covering six different brands.

Dataset

01 ✕ Adidas



02 ✕ Nike Air Force



03 ✕ Air Jordan



04 ✕ Nike Air Max



05 ✕ Kobe



06 ✕ Nike SB



Dataset - Models

01 ✕ Air Max 90



02 ✕ Air Max 720



03 ✕ Air Max 97



04 ✕ Air Max Tailwind



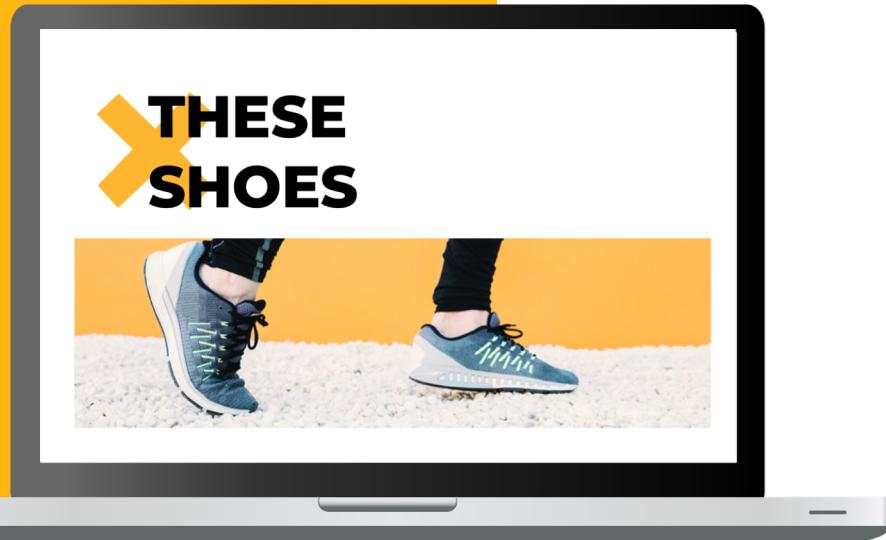
05 ✕ Air Max 95



06 ✕ Air Max 270



Convolutional Neural Network ✘



- Froze VGG16 convolutional layers
- Created new fully connected block
- Leveraged ImageDataGenerator to configure image augmentation

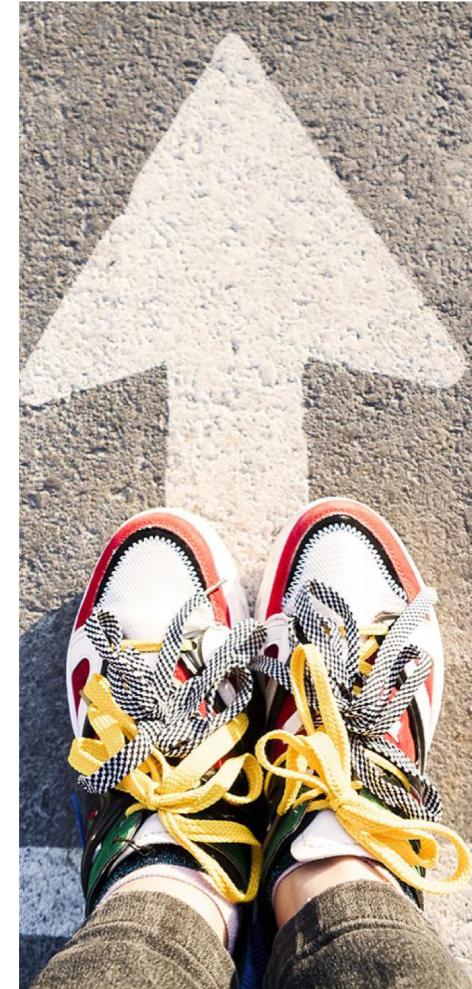
Model Performance

x

	Precision	Recall	F1- Score
Adidas	0.23	0.26	0.24
Air Jordan	0.27	0.26	0.27
Kobe	0.04	0.03	0.04
Nike Air Force	0.15	0.17	0.16
Nike Air Max	0.23	0.20	0.22
Nike SB	0.08	0.08	0.08

	F1- Score
Accuracy	0.23

Recall – % of sneakers labeled correctly to actual brand



Recommender ✕

Model: Low SB
Style: Ben & Jerry's



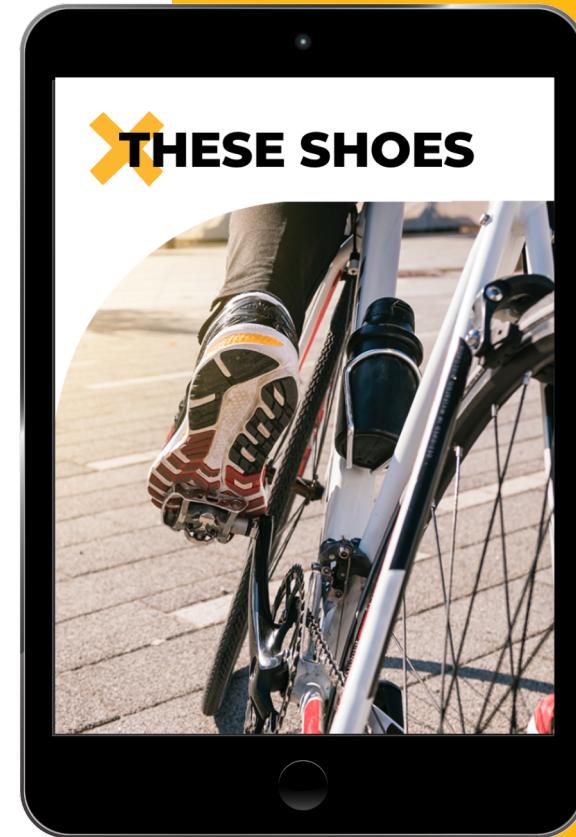
Model: Low SB
Style: Orange Bear



Model: Low SB
Style: Yellow Bear



Model: Low SB
Style: Three Bear's





THANKS

If you have any questions below is

Additional Resource

<https://github.com/jblezin/What-Are-Those>

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