

Text Analytics

2019 1학기

최종발표

(Shoes Recommendation System)

백승호 2019020533

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1

Introduction

- 프로젝트 주제
- 데이터 수집(Text, image)

2

Text, image embedding

- Text embedding
- Image embedding

3

Similarity

- Text & Image Distance matrix
- Concatenation

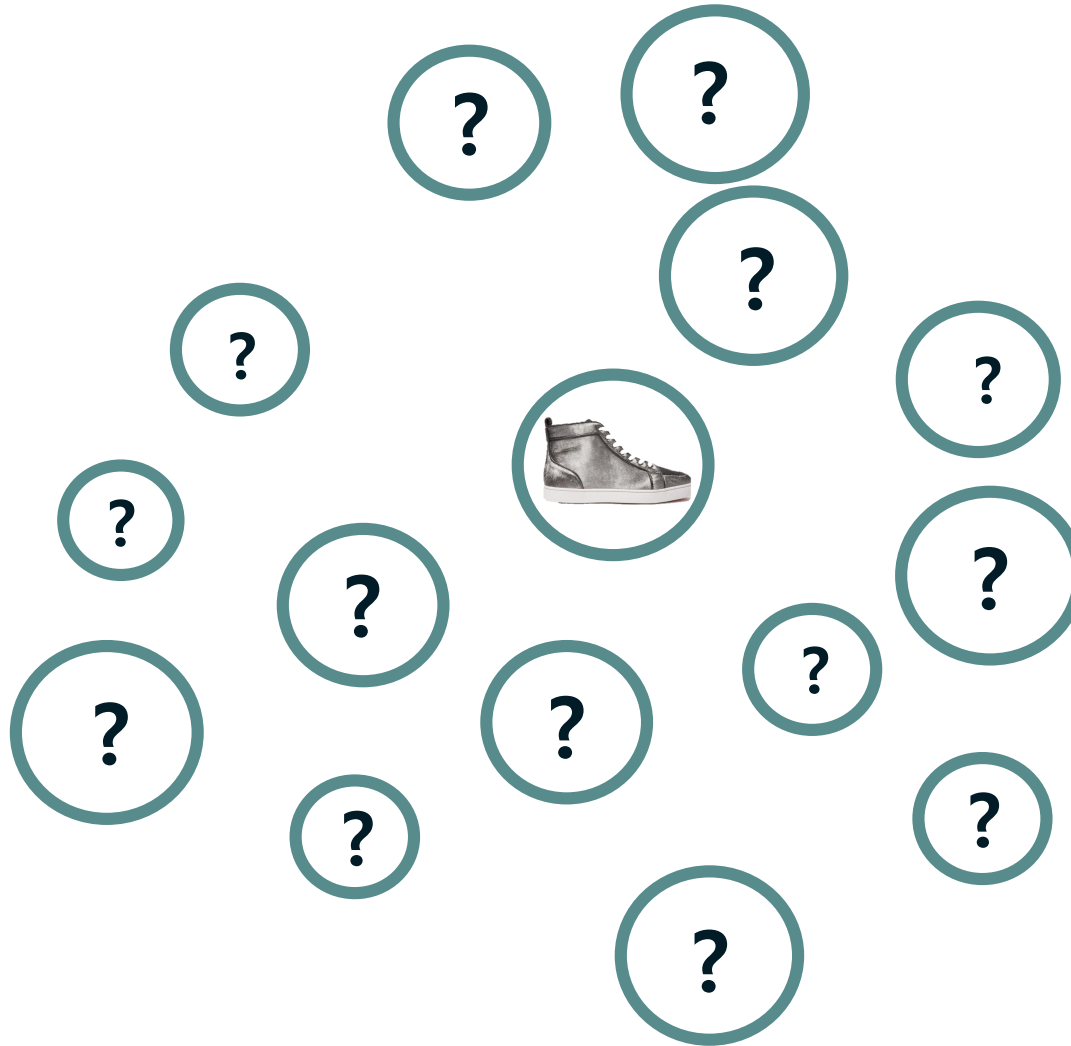
4

Survey & result

1. Introduction

- 프로젝트 주제
- 데이터 수집(Text, Image)

- 신발 추천 시스템



- 가장 비슷한 신발을 추천




CHRISTIAN LOUBOUTIN

Rantus Orato calf-hair high-top trainers

₩ 1,106,200 / £ 716

15% OFF YOUR FIRST ORDER. Enter code NEW15.

Limited Time Only. Brand exclusions apply.


Country of origin: EU (duty free) You will be charged in £ 

QUANTITY:

SIZE:

1

SELECT SIZE

Size Guide 



ADD TO BAG

ADD TO WISHLIST

SHOP THE LOOK

DESCRIPTION

Christian Louboutin's Rantus Orato trainers are a signature style of the French label, and are presented here in a metallic-silver calf-hair iteration. Offering lustrous appeal to the classic high-top silhouette, they have grey lacquered edges and a leather and gunmetal logo embellishment on the side. Fits true to size.

Shown here with [Prada Slim-leg wool-blend trousers](#), Oliver Spencer Merino wool roll-neck sweater and [Wales Bonner Wool jacket](#).

DETAILS

- COLOUR: Silver
- COMPOSITION: Calf hair.
- PLACE OF ORIGIN: EU
- Round toe, high top


CHRISTIAN LOUBOUTIN

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1

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Size Guide 

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SHOP THE LOOK

Image data



Text data

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Image
Embedding

Text
Embedding

Similarity 측정

Image data



Text data

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Shown here with Prada Slim-leg wool-blend trousers, Oliver Spencer Merino wool roll-neck sweater and Wales Bonner Wool jacket.

DETAILS

- COLOUR: Silver



Similar



The Vans Sk8-Hi Top Sneaker adds the perfect amount of vintage and street-inspired style to look. Made with a soft canvas and suede upper with adjustable lace-up closure, this high top sneaker is classic yet versatile. The ankle is padded for support and durability, while Vans' signature vulcanized waffle rubber outsole allows for maximum traction.

- Canvas & suede upper
- Lace-up
- High-top silhouette
- Padded ankle/collar
- Vulcanized waffle rubber outsole
- Contrast stitching details
- Vans logo at tongue & rear

Vans Sk8-Hi Top Sneaker

Customer rating: ★★★★★ 4.9 (72) [VIEW QUESTIONS & ANSWERS](#)



Hover above to zoom

SIZE: Select a Size

3.5	4	4.5	5
5.5	6	6.5	7
7.5	8	8.5	9
9.5	10	10.5	11
11.5	12	13	14
15	16		

This item does not follow standard US sizing. See size chart for proper fit.

[SIZE CHART](#)
[SEE FIT GUIDE](#)

WIDTH: M (Regular)



You pay:

\$64.95

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[NOTIFY ME WHEN MY SIZE IS AVAILABLE](#)

Vans Sk8-Hi Top Sneaker Product Description

The Vans Sk8-Hi Top Sneaker adds the perfect amount of vintage and street-inspired style to your look. Made with a soft canvas and suede upper with adjustable lace-up closure, this high top sneaker is classic yet versatile. The ankle is padded for support and durability, while Vans' signature vulcanized waffle rubber outsole allows for maximum traction.

- Canvas & suede upper
- Lace-up
- High-top silhouette
- Padded ankle/collar
- Vulcanized waffle rubber outsole
- Contrast stitching details
- Vans logo at tongue & rear
- This style is unisex

num	brand	shoes_name	price	color	description
37	Skechers	After Burn Memory Fit Cross Training Shoe	54.95	Black/Gray	A true classic gets even better with the SKECHERS After Burn Memory Fit Cross Training Shoe. This shoe is designed to provide you with the perfect amount of support and cushioning for your workout.
38	Rider	Dunas II Sandal	37.95	Black/Beige	Introducing the Dunas II Sandal from the Rider brand. This sandal is designed to provide you with the perfect amount of support and cushioning for your walk.
39	Merrell	Moab 2 Vent Hiking Shoe	99.95	Beluga	The Merrell Moab 2 Vent Hiking Shoe is a classic yet versatile hiking shoe. It features a soft canvas and suede upper with adjustable lace-up closure, providing you with the perfect amount of support and cushioning for your hike.
40	Dunham	Windsor Waterproof	139.95	Black	The Dunham Windsor Waterproof shoe is a classic yet versatile nautical shoe. It features a soft canvas and suede upper with adjustable lace-up closure, providing you with the perfect amount of support and cushioning for your walk.
41	Birkenstock	Arizona Oiled Leather	125.00	Black Oiled	The Birkenstock Arizona Oiled Leather shoe is a classic yet versatile casual shoe. It features a soft canvas and suede upper with adjustable lace-up closure, providing you with the perfect amount of support and cushioning for your walk.
42	Dunham	Captain Mesh	129.95	Black	Oh Captain my Captain, the Captain Boat shoe from Dunham is a timeless nautical shoe. It features a soft canvas and suede upper with adjustable lace-up closure, providing you with the perfect amount of support and cushioning for your walk.
43	Rockport	Prowalker M7100	64.95	Black	Introducing the Prowalker M7100 from the Rockport Prowalker® Series. This walking shoe is designed to provide you with the perfect amount of support and cushioning for your walk.
44	Vans	Sk8-Hi Top Sneaker	64.95	(I Heart Vans)	The Vans Sk8-Hi Top Sneaker adds the perfect amount of vintage and street-inspired style to your look. Made with a soft canvas and suede upper with adjustable lace-up closure, this high top sneaker is classic yet versatile. The ankle is padded for support and durability, while Vans' signature vulcanized waffle rubber outsole allows for maximum traction.
45	New Balance	626v2 Work Shoe	84.95	Black Leather	For workers on their feet all day, the New Balance 626v2 Work Shoe offers comfort and support. It features a soft canvas and suede upper with adjustable lace-up closure, providing you with the perfect amount of support and cushioning for your work.
46	Johnston & Murphy	Prentiss Plain Toe Sneaker	168.95	Black Water	The Johnston & Murphy Prentiss Plain Toe Sneaker is a waterproof nubuck sneaker. It features a soft canvas and suede upper with adjustable lace-up closure, providing you with the perfect amount of support and cushioning for your walk.
47	SAS	JV Hook and Loop Sneaker	176.95	Black Suede	The stylish and functional SAS JV Hook and Loop Sneaker shows off adjustable support. It features a soft canvas and suede upper with adjustable lace-up closure, providing you with the perfect amount of support and cushioning for your walk.
48	Johnston & Murphy	McGuffey Woven Slip-On	138.95	Beige Nubuck	With its unique woven design and modern styling, the Johnston & Murphy McGuffey Woven Slip-On shoe is a classic yet versatile casual shoe. It features a soft canvas and suede upper with adjustable lace-up closure, providing you with the perfect amount of support and cushioning for your walk.
49	New Balance	MID627v2 Steel Toe Work Shoe	99.95	Black/Black	The New Balance MID627v2 Steel Toe Work Shoe Steel has a lot to offer. From the classic steel toe to the modern styling, this shoe is designed to provide you with the perfect amount of support and cushioning for your work.
50	Deer Stag	Greenpoint Slip-On	34.99	Black	Sleek and sophisticated, the Greenpoint's squared-off toe and smart stitching make it a classic yet versatile casual shoe. It features a soft canvas and suede upper with adjustable lace-up closure, providing you with the perfect amount of support and cushioning for your walk.
51	Skechers	GOwalk Max Slip-On Walking Shoe	51.95	Black/Black	Get the maximum comfort and cushioning for athletic walking with the Skechers GOwalk Max Slip-On Walking Shoe. This shoe is designed to provide you with the perfect amount of support and cushioning for your walk.

총 8,476 개의 텍스트 데이터 확보



2. Text, Image Embedding

- Natural Language Process
- Word Embedding(Doc2Vec)
- Convolutional Auto-Encoder



Description

수집된 데이터(8420개)

description
The Vans ComfyCush Old Skool Sneaker revitalizes the classic Old Skool silhouette with elevated
Surround yourself with comfort, style and protection wearing the SKECHERS Work Relaxed Fit®:
A true classic gets even better with the SKECHERS After Burn Memory Fit Cross Training Shoe. Th
The Dunas II Sandal is the perfect everyday flip-flop with classic styling and premier comfort.
The Men's Merrell Moab 2 Vent Hiking Shoe is designed to fit your adventurous side. Suede, leat
Tru-Trak soft rubber outsole. Imeva® molded midsole with ABZORB® heel and forefoot. Waterp
The classic Birkenstock Arizona oiled leather sandal is the style you know and love, crafted in a c
Oh Captain my Captain, the Captain Boat shoe from Dunham is a timeless nautical style that is p
Introducing the Prowalker M7100 from the Rockport Prowalker® Series. This walking shoe guar
The Vans Sk8-Hi Top Sneaker adds the perfect amount of vintage and street-inspired style to yo
For workers on their feet all day, the New Balance 626v2 Work Shoe offers compression-molded
The Johnston & Murphy Prentiss Plain Toe Sneaker is a waterproof nubuck sneaker with soft she
The stylish and functional SAS JV Hook and Loop Sneaker shows off adjustable straps that allow
With its unique woven design and modern styling, the Johnston & Murphy McGuffey Woven Slip
The New Balance MID627v2 Steel Toe Work Shoe Steel has a lot to offer. From the foam cushion
Sleek and sophisticated, the Greenpoint's squared-off toe and smart stitching make it the coolest
Get the maximum comfort and cushioning for athletic walking with the Skechers GOwalk Max. M
The Brooks Launch 6 Running Shoe is built to be springy and fast, with zero distractions. Design
The Hoka One One Bondi LTR Walking Shoe provides all the comfort enhancing features for whic
If you're a fan of Sperry Top-Sider's nautical style, you'll go overboard for the Sperry Top-Sider Bi



Sentence Splitting & Tokenization

단어 구분 후 3글자 이상의 영어 단어들만 모두 소문자로 변경
(공백 제거, 구두점 제거, 숫자 제거, 특수 문자 제거)

the	vans	comfy	cush	old	skool	sneaker	revitalizes	the	classic
surround	yourself	with	comfort	style	and	protection	wearing	the	
true	classic	gets	even	better	with	the	skechers	after	
the	dunas	sandal	the	perfect	everyday	flip	flop	with	
the	men	merrell	moab	vent	hiking	shoe	designed	fit	
tru	trak	soft	rubber	outsole	imeva	molded	midsole	with	
the	classic	birkenstoc	arizona	oiled	leather	sandal	the	style	
captain	captain	the	captain	boat	shoe	from	dunham	timeless	
introducing	the	prowalker	from	the	rockport	prowalker	series	this	
the	vans	top	sneaker	adds	the	perfect	amount	vintage	
for	workers	their	feet	all	day	the	new	balance	
the	johnston	murphy	prentiss	plain	toe	sneaker	waterproof	nubuck	
the	stylish	and	functional	sas	hook	and	loop	sneaker	
with	its	unique	woven	design	and	modern	styling	the	
the	new	balance	mid	steel	toe	work	shoe	steel	
sleek	and	sophisticat	the	greenpoint	squared	off	toe	and	
get	the	maximum	comfort	and	cushioning	for	athletic	walking	
the	brooks	launch	running	shoe	built	springy	and	fast	
the	hoka	one	one	bondi	ltr	walking	shoe	provides	
you	fan	sperry	top	sider	nautical	style	you	overboard	



Part-of-Speech(POS) Tagging

Lemmatization을 적용한 이후 NN, NNP, NNPS, VB, VBN, VBD, JJ, RB Tag에 해당하는 Token들로 Corpus 구성

POS Tag	Description
NN	명사
NNP	고유명사
NNPS	고유명사 (복수)
VB	일반동사
VBN	과거분사
VBD	과거동사
JJ	형용사
RB	부사

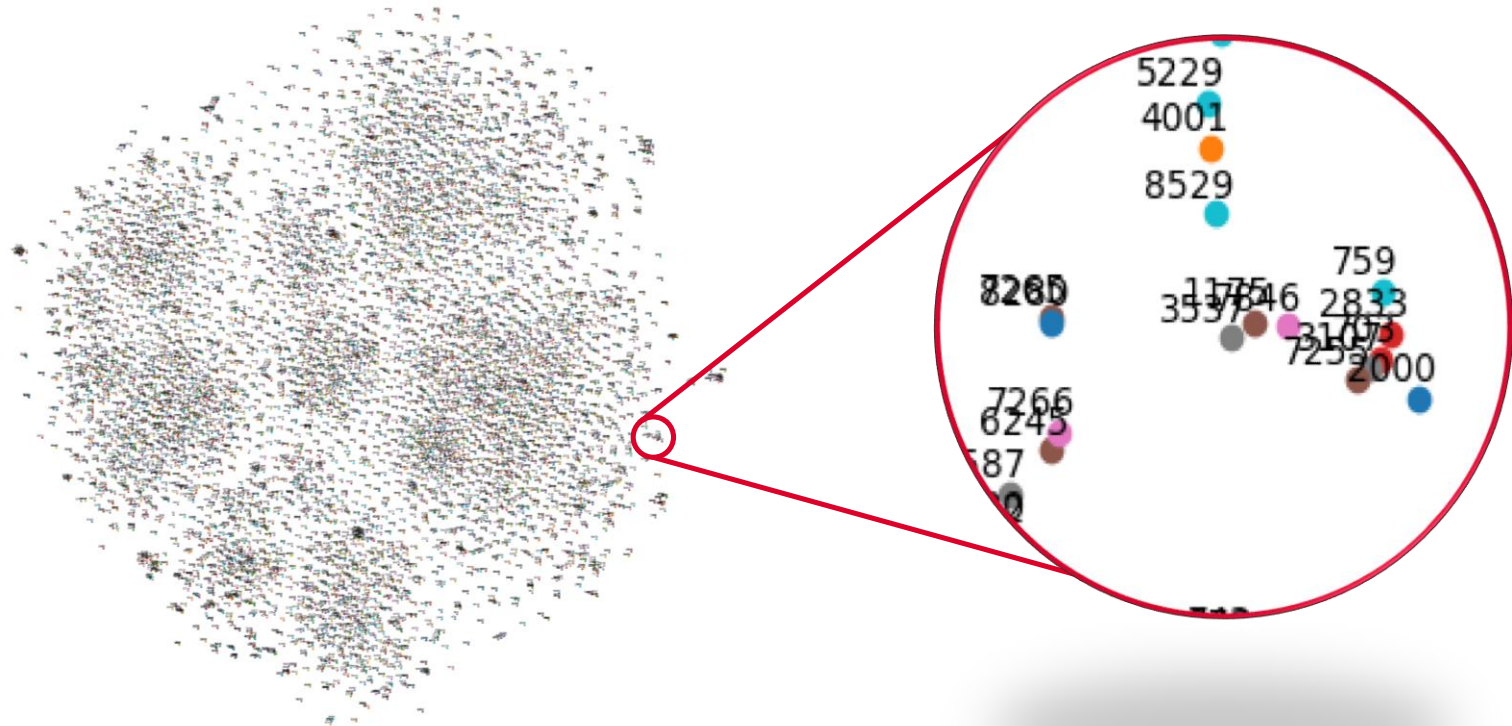
('the', 'DT') ('van', 'NN') ('comfy', 'JJ') ('old', 'JJ') ('skool', 'N') ('sneaker', 'N') ('revitalize', 'VB') ('the', 'DT') ('classic', 'JJ') ('surround', 'VB') ('yourself', 'PRP') ('with', 'IN') ('comfort', 'JJ') ('style', 'NN') ('and', 'CC') ('protection', 'NN') ('wear', 'VB') ('the', 'DT') ('true', 'JJ') ('classic', 'JJ') ('get', 'NN') ('even', 'RB') ('well', 'RB') ('with', 'IN') ('the', 'DT') ('sneakers', 'N') ('after', 'IN') ('the', 'DT') ('dunas', 'N') ('sandal', 'N') ('the', 'DT') ('perfect', 'JJ') ('everyday', 'JJ') ('flip', 'NN') ('flop', 'NN') ('with', 'IN') ('the', 'DT') ('men', 'NN') ('merrell', 'N') ('moab', 'N') ('vent', 'NN') ('hike', 'NN') ('shoe', 'N') ('design', 'N') ('fit', 'VB') ('tru', 'NN') ('trak', 'NN') ('soft', 'JJ') ('rubber', 'N') ('outsole', 'N') ('imeva', 'N') ('mold', 'N') ('midsole', 'N') ('with', 'IN') ('the', 'DT') ('classic', 'JJ') ('birkensto', 'N') ('arizona', 'N') ('oil', 'NN') ('leather', 'N') ('sandal', 'N') ('the', 'DT') ('style', 'NN') ('captain', 'N') ('captain', 'N') ('the', 'DT') ('captain', 'N') ('boat', 'N') ('shoe', 'N') ('from', 'IN') ('dunham', 'N') ('timeless', 'N') ('introduce', 'VB') ('the', 'DT') ('prowalker', 'N') ('from', 'IN') ('the', 'DT') ('rockport', 'N') ('prowalker', 'N') ('series', 'N') ('this', 'DT') ('the', 'DT') ('van', 'NN') ('top', 'JJ') ('sneaker', 'N') ('add', 'VB') ('the', 'DT') ('perfect', 'JJ') ('amount', 'N') ('vintage', 'N') ('for', 'IN') ('worker', 'N') ('their', 'PRP') ('foot', 'NN') ('all', 'DT') ('day', 'NN') ('the', 'DT') ('new', 'JJ') ('balance', 'N') ('the', 'DT') ('johnston', 'N') ('murphy', 'N') ('prentiss', 'N') ('plain', 'N') ('toe', 'NN') ('sneaker', 'N') ('waterproof', 'N') ('nubuck', 'N') ('the', 'DT') ('stylish', 'JJ') ('and', 'CC') ('functional', 'N') ('sa', 'NN') ('hook', 'N') ('and', 'CC') ('loop', 'N') ('sneaker', 'N') ('with', 'IN') ('it', 'PRP') ('unique', 'JJ') ('woven', 'JJ') ('design', 'N') ('and', 'CC') ('modern', 'N') ('style', 'NN') ('the', 'DT') ('the', 'DT') ('new', 'JJ') ('balance', 'N') ('mid', 'NN') ('steel', 'NN') ('toe', 'NN') ('work', 'NN') ('shoe', 'N') ('steel', 'NN') ('sleek', 'JJ') ('and', 'CC') ('sophisticated', 'N') ('the', 'DT') ('greenpoint', 'N') ('square', 'N') ('off', 'IN') ('toe', 'NN') ('and', 'CC') ('get', 'VB') ('the', 'DT') ('maximum', 'N') ('comfort', 'N') ('and', 'CC') ('cushion', 'N') ('for', 'IN') ('athletic', 'N') ('walking', 'N') ('the', 'DT') ('brooks', 'N') ('launch', 'N') ('run', 'VBP') ('shoe', 'JJ') ('build', 'N') ('springy', 'N') ('and', 'CC') ('fast', 'NN') ('the', 'DT') ('hoka', 'N') ('one', 'CD') ('one', 'CD') ('bondi', 'N') ('ltr', 'NN') ('walk', 'VB') ('shoe', 'N') ('provide', 'N') ('you', 'PRP') ('fan', 'VBP') ('sperry', 'N') ('top', 'JJ') ('sider', 'N') ('nautical', 'N') ('style', 'NN') ('you', 'PRP') ('overboard', 'N')





Word embedding

t-sne 를 이용한 2차원 시각화





Word embedding

재질의 유사도가 높음



Image



Resize



Convolutional
Auto-Encoder

Image

RGB, 총 8420개



Image



Resize



Convolutional
Auto-Encoder

Resize

각각 사진의 크기가 다르기 때문에 동일한 크기로 사이즈를 재구성



Image



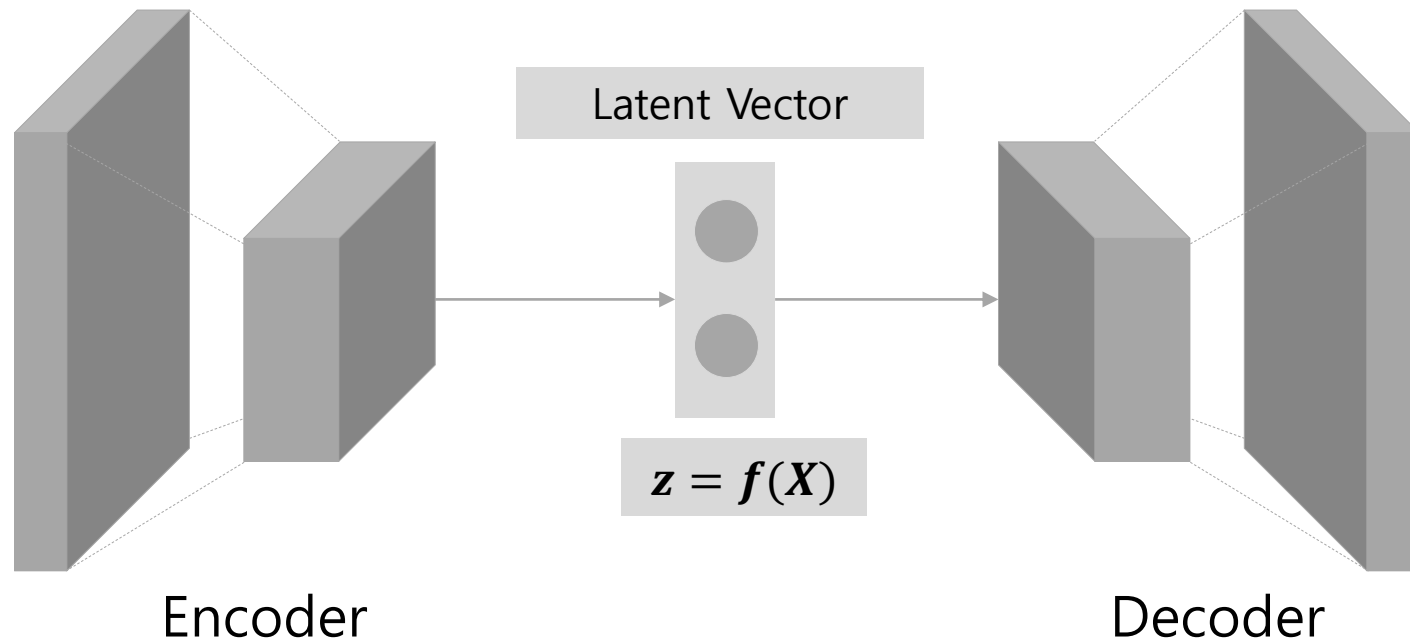
Resize



**Convolutional
Auto-Encoder**

Convolutional Auto-Encoder

이미지 데이터 분석 시, 일정 영역 픽셀들의 관계를 분석 시 사용하는 모델
원본 이미지로부터 생성되는 정보를 얻을 수 있음(Bottleneck Layer)
Bottleneck Layer의 차원은 128로 설정



Image



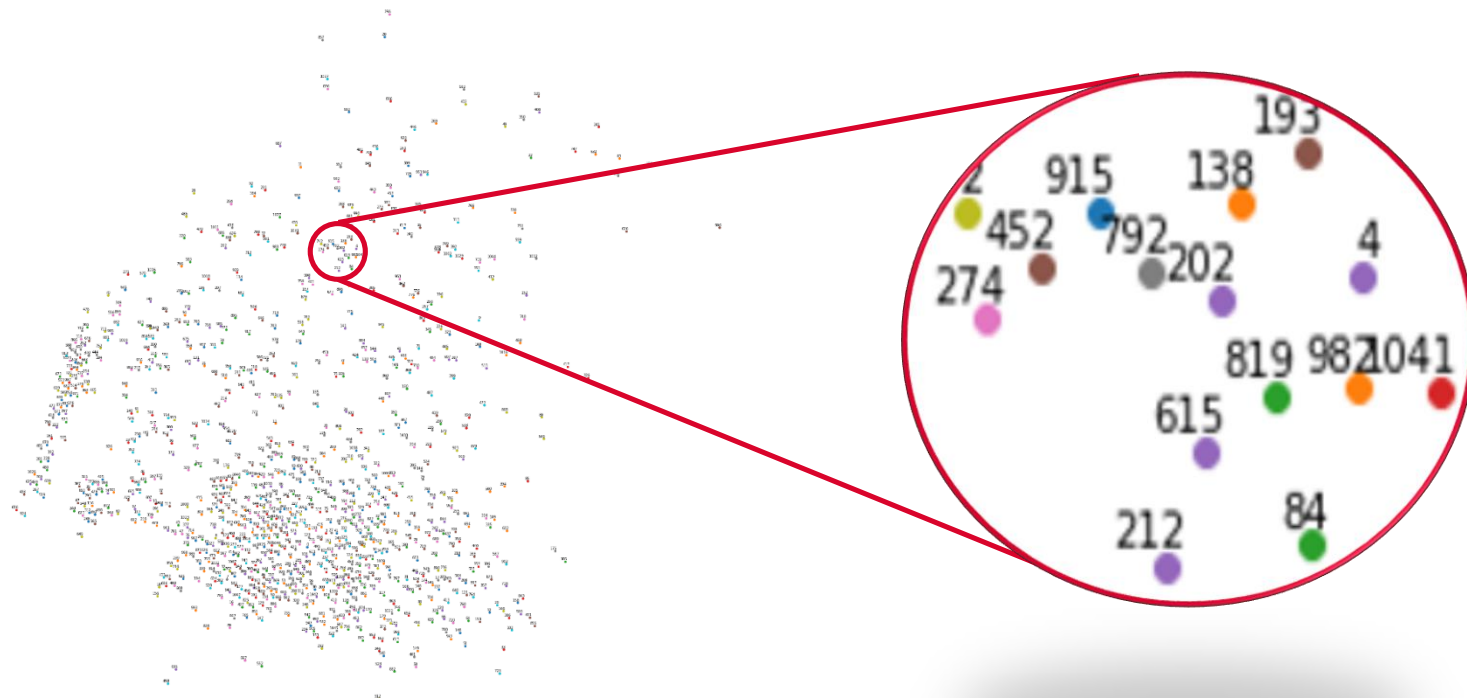
Resize



**Convolutional
Auto-Encoder**

Convolutional Auto-Encoder

t-sne 를 이용한 2차원 시각화



Image



Resize



**Convolutional
Auto-Encoder**

Convolutional Auto-Encoder

형태의 유사도가 높음



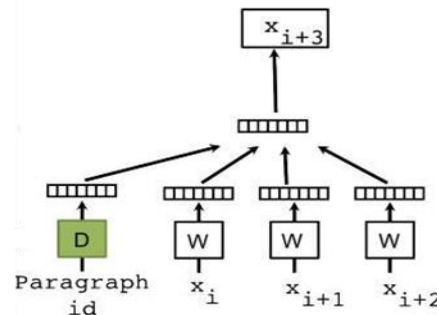
Embedded Data

- Final Reference data set
 - Text와 Image data의 Embedding 결과

Text

Oh Captain my Captain, the Captain Boat shoe from Dunham is a timeless nautical style that is perfect for all occasions. Get your sealegs with seaworthy elements like a supple waterproof leather upper, water-venting mesh sidewalls, midsole water management system, and wet/dry slip-resistant rubber outsole. Additional features like Rollbar and an embedded Nylon stability shank. These shoes were made for walking. Discover why when you slip on the comfortable oxford style we, silhouette of the Rockport World Tour Classic Walking Shoe. The lasting comfort begins with a soft Rockport's Walking Platform Construction which provides a wide, stable base that supports your feet without sacrificing flexibility. A cushioned EVA footbed will mold to the shape of your foot for an individualized fit, while a padded tongue helps to prevent blisters. To make sure every step of your journey is a surefooted as the last, these walking shoes are built on a resilient rubber outsole which provides plenty of traction and stability. Stylish lace-up front ties together the easy-to-clean full You don't need to wait for throwback Thursday to rock the vintage-inspired Vans Old Skool sneaker. One of the first Vans silhouettes designed with the signature side stripe, these sneakers for men have been keeping it cool since 1977 with their suede or canvas low-top upper, classic lace-up front, and rubber waffle outsole. Updated comfort features like a padded tongue and soft sock liner provide modern comfort in a retro silhouette. Shop a diverse collection of color and pattern options to find the style that's right for you.

Doc2vec



Reference matrix

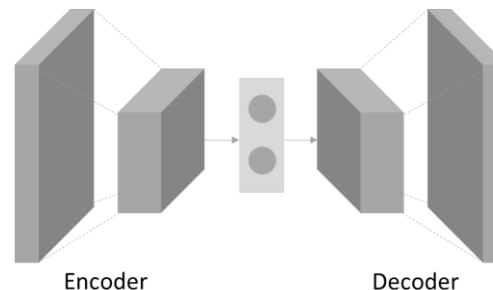
$$\begin{bmatrix} W_{1,1} & \cdots & W_{1,128} \\ \vdots & \ddots & \vdots \\ W_{8420,1} & \cdots & W_{8420,128} \end{bmatrix}$$

Shape : [8420, 128]

Image



CAE



Reference matrix

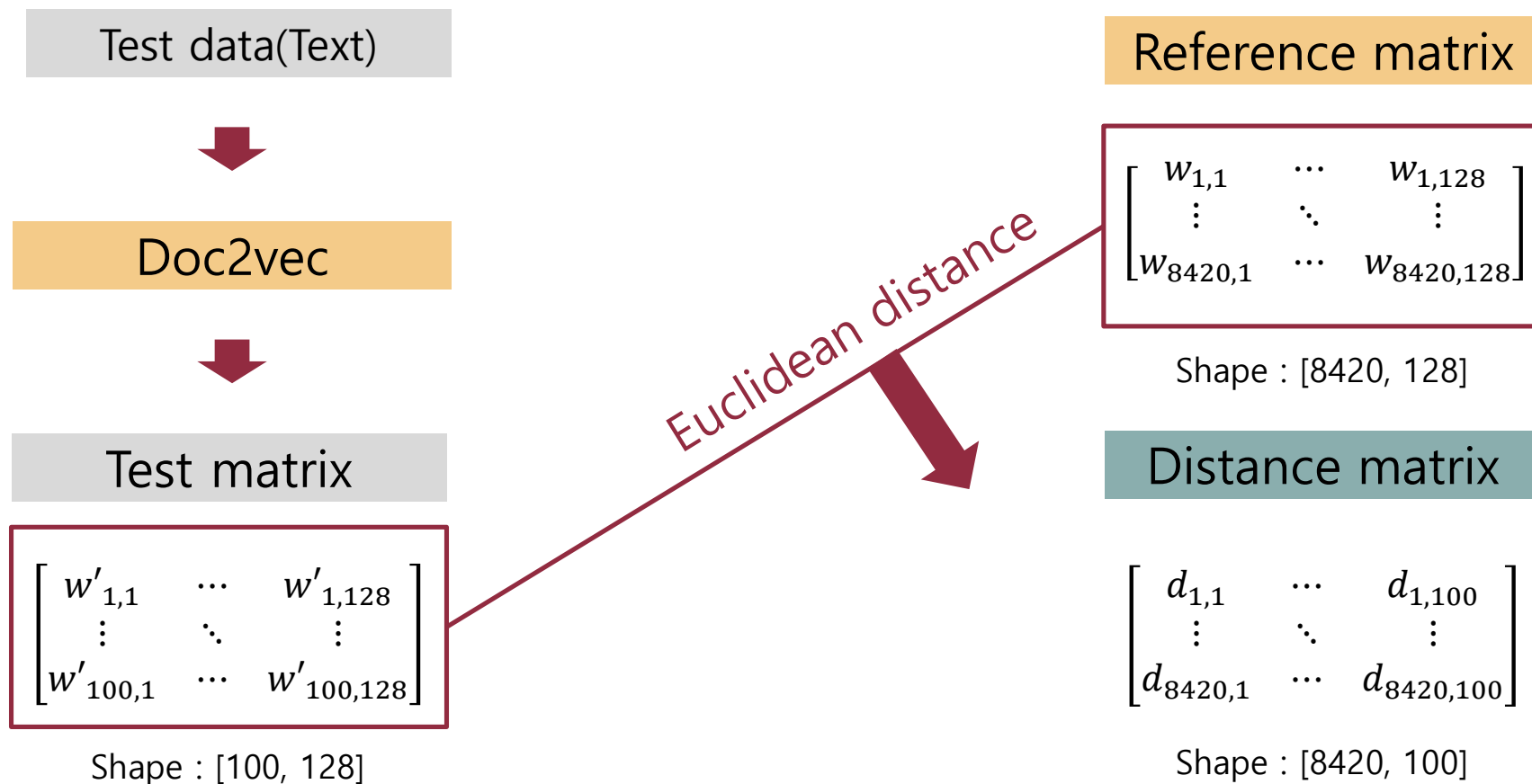
$$\begin{bmatrix} Z_{1,1} & \cdots & Z_{1,128} \\ \vdots & \ddots & \vdots \\ Z_{8420,1} & \cdots & Z_{8420,128} \end{bmatrix}$$

Shape : [8420, 128]

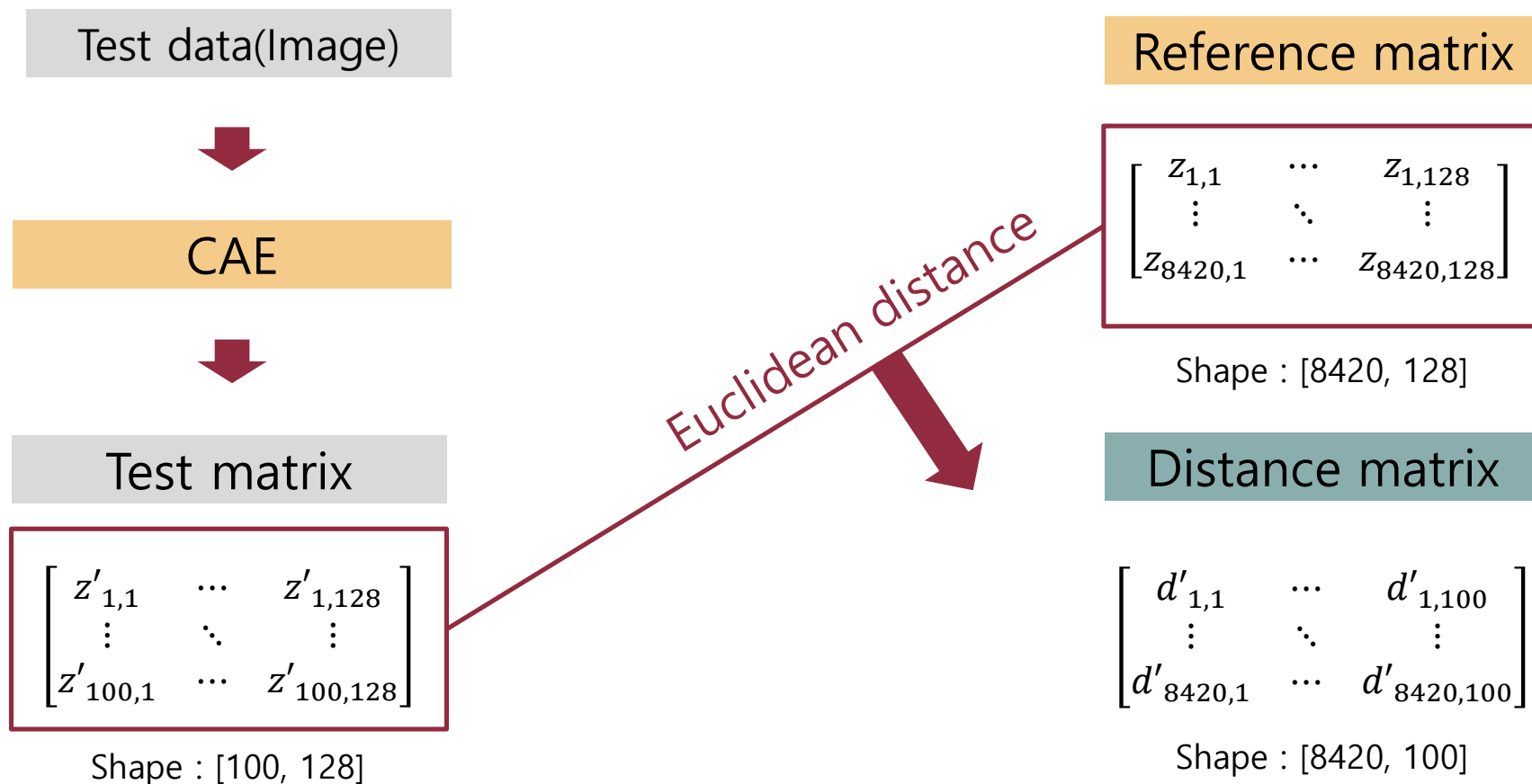
3. Similarity

- Text & Image Distance Matrix
- Concatenation

- Text
 - 학습된 Doc2Vec 모델에 명품 신발의 Text를 적용하여 Test matrix를 구한 후 Distance matrix를 구함



- Image
 - 학습된 CAE 모델에 명품 신발의 Image를 적용하여 Test matrix를 구한 후 Distance matrix를 구함



Text + Image

- Text, Image 각각 Distance Matrix를 구하여 선형 결합
- 가중치 α 로 Text, Image의 비중을 조절할 수 있음($0 \leq \alpha \leq 1$)

Distance matrix(text)

$$\alpha \begin{bmatrix} d_{1,1} & \cdots & d_{1,100} \\ \vdots & \ddots & \vdots \\ d_{8420,1} & \cdots & d_{8420,100} \end{bmatrix}$$

Shape : [8420, 100]

Distance matrix(image)

+

$(1 - \alpha)$

$$\begin{bmatrix} d'_{1,1} & \cdots & d'_{1,100} \\ \vdots & \ddots & \vdots \\ d'_{8420,1} & \cdots & d'_{8420,100} \end{bmatrix}$$

Shape : [8420, 100]

Final distance matrix

$$= \begin{bmatrix} D_{1,1} & \cdots & D_{1,100} \\ \vdots & \ddots & \vdots \\ D_{8420,1} & \cdots & D_{8420,100} \end{bmatrix}$$

$D_{i,j}$ = i번째 reference data와 j번째 test data의 distance

- Text, Image의 가중치를 조절해가며 실험 진행
 - Text만 사용했을 때와 Image만 사용했을 때, Text와 Image를 둘 다 사용했을 때를 비교하여 실험
 - 선택한 그림에 대해 가장 유사한 5개의 신발을 추천



Text	Image
100%	0%
70%	30%
50%	50%
30%	70%
0%	100%

- Text, Image의 가중치를 조절해가며 실험 진행
 - Top 5 Image



Text 100% Image 0%					
Text 50% Image 50%					
Text 0% Image 100%					

- Text 반영 확인
 - Text 100%, Image 0%



The Men's Branson Roper features an 8-layer Rocky® Ride comfort system with Durable Welt construction, a Heel Stabilizer for added comfort, a Stability Removable Dual-Density Polyurethane Footbed and a Steel Shank for extra support.

This **boot** has a **burnished goat leather** and are accented with the label's **brown and black**.

Rubber midsole is made of lightweight EVA that absorbs shock so your feet don't feel the full impact and also helps to lessen the amount of weight that you press down throughout the day.

The flexible **rubber outsole** is comfortable to stand on, provides excellent traction and also topnotch oil resistance.

Grained leather

Pull straps

Brown leather midsole

Brown leather interior and insole



Hiking footwear is key to this season's trend landscape and Moncler's dark brown Peak ankle **boots** are an authentic option for casual weekend wear and mountaineering. The product of Italian craftsmanship, they're made from **structured grained leather** and are accented with the label's **navy, red and white colours** – after the French flag – in the woven laces, back **rubber** logo, and **rubber midsole**. They run according to size.

Grained leather, black nylon top edge

Navy, red and white woven laces, silver-tone metal hooks

Navy, red and white **rubber** logo

Brown leather midsole, navy, red and white **rubber** mid layer

Black **rubber sole**

Black leather interior and insole

- Text 반영 확인
 - Text 50%, Image 50%



The Danner Trakwelt Non-Metallic Toe Work **Boot** takes the demands of the job without complaint and keeps you comfortable in the process. Danner figures the less you're thinking about your feet, the better you can do your job and the better Danner has done theirs.

Waterproof **full-grain leather** upper

Danner® Dry waterproof protection

Toe Shield protects **leather** for added durability

Cushioning PU footbed.

PU midsole with shock absorbing zones under heel and forefoot for targeted cushioning.

Black nylon shank

Black rubber sole

Stable, long-lasting, Goodyear welt construction



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Grained leather, black nylon top edge

Navy, red and white woven laces, silver-tone metal hooks

Navy, red and white **rubber** logo

Brown **leather** midsole, navy, red and white **rubber** mid layer

Black rubber sole

Black leather interior and insole

- Image 반영 확인
 - Text 0%, Image 100%
 - Image 100%만 반영하였을 때, 신발의 형태는 매우 비슷하지만 신발 색상이나 소재는 유사성이 떨어짐



The classic AdTec 6" Work **Boot** has all the features you want in a work **boot** with none that you don't. It has an oil and slip-resistant outsole for safety, a cushioned insole and padded collar for comfort even after a whole day on your feet.

Cement construction
Oil and slip-resistant outsole
Cushioned insole
Padded collar
...



Hiking footwear is key to this season's trend landscape and Moncler's dark brown Peak ankle **boots** are an authentic option for casual weekend wear and mountaineering. The product of Italian craftsmanship, they're made from structured grained leather and are accented with the label's navy, red and white colours – after the French flag – in the woven laces, back rubber logo, and rubber midsole. They run according to size.

Grained leather, black nylon top edge
Navy, red and white woven laces, silver-tone metal hooks
Navy, red and white rubber logo
Brown leather midsole, navy, red and white rubber mid layer
Black rubber sole
Black leather interior and insole

4. Survey & Result

Survey

- 총 50명 대상으로 진행
- 5개 종류의 신발(스니커즈, 부츠, 구두, 워커, 슬리퍼)

명품과 비슷한 스타일의 추천 신발을 골라 주세요 19/20 *

명품 Shoes	추천 1	추천 2	추천 3	추천 4	추천 5
					
	추천1	추천2	추천3	추천4	추천5
					비슷한 제품 없음
중복 체크	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Text 100%, Image 0%

- Survey
 - 총 50명 대상으로 진행
 - 5개 종류의 신발(스니커즈, 부츠, 구두, 워커, 슬리퍼)

명품과 비슷한 스타일의 추천 신발을 골라 주세요 12/20 *

명품 Shoes	추천 1	추천 2	추천 3	추천 4	추천 5
					
	추천1	추천2	추천3	추천4	추천5
중복 체크	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

비슷한 제품 없음

Text 50%, Image 50%

Survey

- 총 50명 대상으로 진행
- 5개 종류의 신발(스니커즈, 부츠, 구두, 워커, 슬리퍼)

명품과 비슷한 스타일의 추천 신발을 골라 주세요 7/20 *

명품 Shoes	추천 1	추천 2	추천 3	추천 4	추천 5
					
	추천1	추천2	추천3	추천4	추천5
중복 체크	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

비슷한 제품
없음

Text 30%, Image 70%

- Survey
 - 총 50명 대상으로 진행
 - 5개 종류의 신발(스니커즈, 부츠, 구두, 워커, 슬리퍼)

명품과 비슷한 스타일의 추천 신발을 골라 주세요 4/20 *

명품 Shoes	추천 1	추천 2	추천 3	추천 4	추천 5	
						
	추천1	추천2	추천3	추천4	추천5	비슷한 제품 없음
중복 체크	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Text 0%, Image 100%

Result

명품 신발 종류	IMG비율	Text 비율	정확도 (추천수/50)	추천(사람) (50-비추천)	비슷한 제품 없음	추천(건) (추천 Sum)	추천1	추천2	추천3	추천4	추천5
스니커즈	0	1	54.0%	27	23	30	0	20	2	6	2
스니커즈	0.5	0.5	96.0%	48	2	92	28	15	16	26	7
스니커즈	0.7	0.3	84.0%	42	8	87	32	15	7	12	21
스니커즈	1	0	88.0%	44	6	93	24	11	23	13	22
부츠	0	1	78.0%	39	11	88	33	1	21	8	25
부츠	0.5	0.5	88.0%	44	6	67	38	11	14	2	2
부츠	0.7	0.3	90.0%	45	5	68	36	12	15	3	2
부츠	1	0	96.0%	48	2	107	26	21	5	20	35
구두	0	1	36.0%	18	32	19	1	15	1	2	0
구두	0.5	0.5	52.0%	26	24	38	11	8	9	7	3
구두	0.7	0.3	98.0%	49	1	91	25	15	9	23	19
구두	1	0	62.0%	31	19	34	7	23	1	3	0
워커	0	1	60.0%	30	20	31	2	1	3	16	9
워커	0.5	0.5	96.0%	48	2	89	38	3	13	24	11
워커	0.7	0.3	96.0%	48	2	95	32	32	15	11	5
워커	1	0	90.0%	45	5	109	26	34	7	22	20
슬리퍼	0	1	24.0%	12	38	12	0	1	0	3	8
슬리퍼	0.5	0.5	80.0%	40	10	42	41	0	1	0	0
슬리퍼	0.7	0.3	86.0%	43	7	71	36	1	10	17	7
슬리퍼	1	0	82.0%	41	9	75	33	24	1	5	12

▪ Result

- Text만 사용했을 때와 Image만 사용했을 때 그리고 Text와 Image 둘 다 사용했을 때 추천해주는 신발이 모두 다름을 확인
- Text와 Image를 모두 반영했을 때 Image만 반영했을 때의 결과보다 높은 추천수를 얻음
- 신발이 가지고 있는 재질이나 세부 포인트 디자인을 Text가 어느정도 반영하는 것을 확인할 수 있음

감사합니다

Q & A