Zara Smart Naming

Camila Barbagallo, Ryan Daher, Rocio Gonzalez Lantero and Joaquin Maroto





OUTLINE





CHALLENGES



PROBLEM



TECH INNOVATION

ZARA

CUSTOMER EXPERIENCE



1 Collection/ 2 Weeks

26 Collections/Year vs. 6 Collections/Year



Automatically tag new items through their description



DATA

TRAIN

- 33,613 observations
- Product name, description

	name	description
0	CROPPED JACKET TRF	Jacket made of a technical fabric with texture
1	OVERSIZED SHIRT WITH POCKET TRF	Oversized long sleeve shirt with a round colla
2	TECHNICAL TROUSERS TRF	High-waist trousers with a matching elastic wa
3	SHIRT DRESS	Collared dress featuring sleeves falling below
4	PUFF SLEEVE DRESS WITH PLEATS TRF	Loose-fitting midi dress with a round neckline

TEST

• 1441 descriptions

description

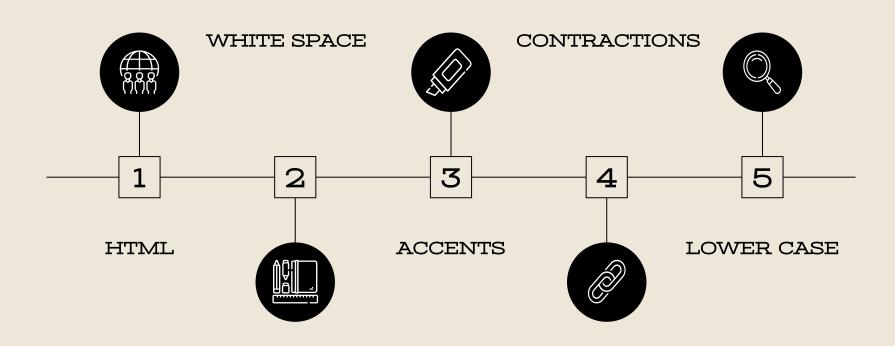
- Knit midi dress with a V-neckline, straps and ...
- 1 Loose-fitting dress with a round neckline, lon...



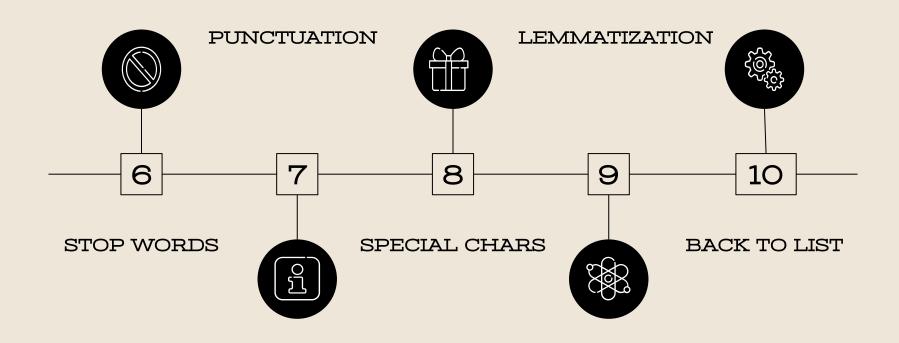
METHOD



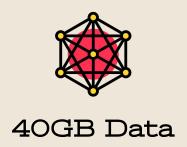
PREPROCESSING



PRE: AFTER TOKENIZATION



GPT-2





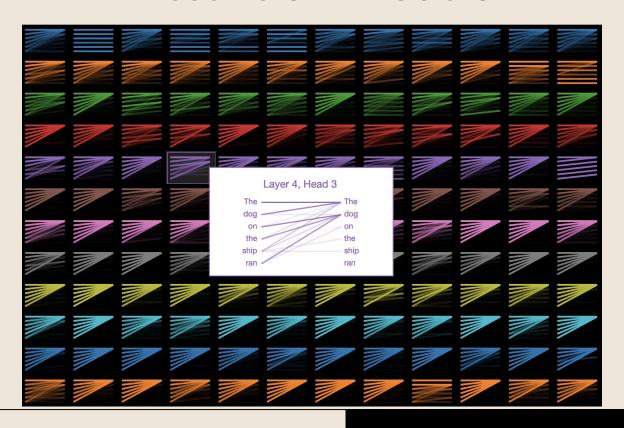


Attention

Predict the next word, given previous text

Goal

Attention Models





STRUCTURE

Tokenizer

Data Loader

Fine-Tune

Decode

EVALUATION

Competitions metric: DCG

$$ext{DCG}_{ ext{p}} = \sum_{i=1}^p rac{rel_i}{\log_2(i+1)} = rel_1 + \sum_{i=2}^p rac{rel_i}{\log_2(i+1)}$$

SIMILARITY

Our own metric: Accuracy

Accuracy =
$$\frac{(TP + TN)}{(TP + FP + TN + FN)}$$

Exact Matches
=
Correct



RESULTS



Prediction	Actual	Match?
SEQUINNED DRESS WITH TIED DETAIL	SEQUINNED DRESS WITH FLORAL PRINT	FALSE
GREEN HERBS CAR AIR FRESHENER	GREEN HERBS CAR AIR FRESHENER	TRUE



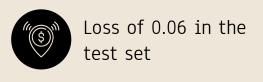
Requires intensive resources



Merge and modify text input to include special strings identifiable by the model



Train with 1 epoch





Around 5% accuracy



DIFFICULTIES









Thank you

Any Questions?

cbarbagallo.ieu2017@student.ie.edu rdaher.ieu2018@student.ie.edu rgonzalez.ieu2018@student.ie.edu jmaroto.ieu2018@student.ie.edu

CREDITS: This presentation template was created by **Slidesgo**, including icons by **Flaticon** and infographics and images by **Freepik**.

Please keep this slide for attribution.

