TOPIC MODELING: CARHARTT'S AMAZON REVIEWS

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OVERVIEW

WHAT IS TOPIC MODELING

- Using unsupervised machine learning methods to extract unknown commonalities from unstructured text data

- Use scenario: when you have a set of unlabeled data and you want to pull out insights from it

- How does it work?
  - *Uses a soft/fuzzy clustering technique to segment reviews into different topics*

MY PROCESS

- Pulled 28,044 Carhartt reviews from Amazon

- Preprocessed the text
  - Broke reviews down to by root word, its part of speech in the sentence, and removed all common and uncommon words

- Built topic models

- Classification of reviews
  - *All reviews, 5-star reviews, and 2 or less star reviews*

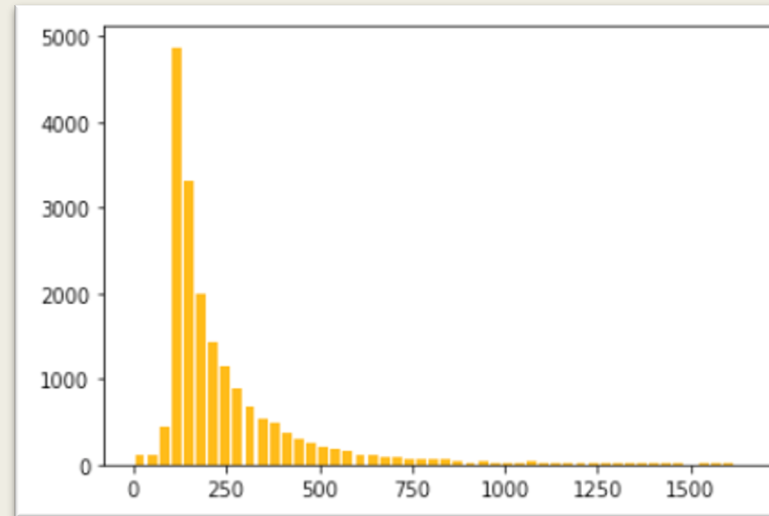- Qualitative analysis

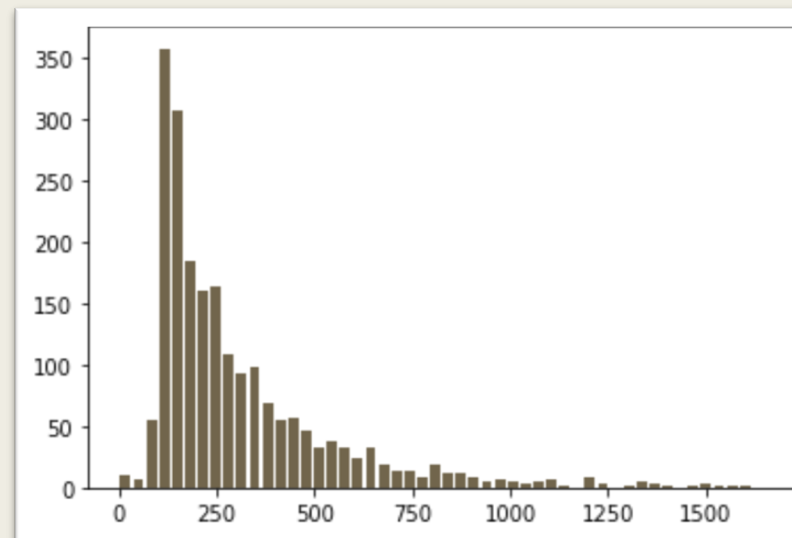- Insights

THE REVIEWS

28,044 total reviews

18,720 with 5-stars

2,103 with 2-stars or less

The good: distribution of character count

The bad: distribution of character count

THE GOOD, THE BAD, AND THE USELESS…

THE USELESS: TOPIC MODEL OF ALL REVIEWS

- 6082 about 'pants'

- 5476 relating to 'shirt'

- 9481 relating to 'coat'

- 3396 relating to 'jacket'

FINDINGS

- Pants are durable and great for work

- Fit well but shrinks in the wash

- Loose fitting pants are popular

- Hard to find clothes as comfortable as Carhartt

- Sizing issues for heavier set people

THE GOOD: 5 STAR REVIEWS

- 2,003 about pants
- 3,639 about shirts
- 1,351 about coat's
- 2,395 about jackets

FINDINGS

1. True Carhartt quality and fit

2. Shirts and pants are great for taller people (long cut)

3. Good products, good price

4. Recommend the comfortable work pants

5. Love all products

6. Well made and high quality jackets

7. t-shirts last longer than expected for the low price

8. Coat fits perfect

9. XL shirts fit big, but that's not a bad thing

11. Ordered for a family member

12. Warm work jacket

13. Fit tall and long

14. Gifted the jacket and it's a keeper

15. Pants run large, only bad if you're little

16. Carhartt is the best way to keep warm when you are working

17. Order didn't fit at first, but then returned it and loved

18. Work clothes are functional and warm

20. Bought as a gift for husband

THE BAD: TWO STARS OR LESS

- 243 about pants

- 383 about shirts

- 84 about coats

- 169 about jacket's

- 393 mention having to return something

FINDINGS

1. Carhartt pants are too tight and too long – for bigger people

2. The zippers on the jacket are low quality

3. The jackets have a weird cut/sizing

4. Unreliable sizing on the t-shirts

5. Over time the color and sizing of jeans has degraded

6. When buying socks, people expect a 6-pack but only get 2 pairs

7. Money clip and wallet are poor quality

8. Carhartt pants are not the same quality they used to be

9. Sizing is off – mostly for socks

10. Boots are cheap and fall apart

11. Pants are too baggy on the legs and too tight around the crotch

12. Jackets don't hold up to the "Carhartt" quality work pants; what they used to be known for

MARKETING & PRODUCT INSIGHTS

WHAT DO PEOPLE LIKE

- High quality clothing for a reasonable price

- Comfortable and durable work pants, good for daily use

- Longer cut pants are great for taller people

- T-shirts are great for bigger cut people

- Great gift for husband/son

- Warm and tight fitting jackets are fashionable

WHAT DO THEY DISLIKE

- Carhartt quality isn't what it used to be, and people are noticing

- A ton of people complaining about the unreliable sizing of the socks

- The pants are fit too tight around the butt and too baggy around the legs

GIFT FOR HUSBAND/SON (ESPECIALLY AROUND WINTER)

PEOPLE LIKE TO BUY THE WOOL SOCKS FOR CHRISTMASS

LOOKING FOR DURABLE AND RELIABLE WORK CLOTHES

PURCHASE OCCASIONS

PRODUCT DEVELOPMENT / IMPROVEMENT

Discuss potential pant leg remodel for shorter people

Quality control for jackets

Consistency in quality of shirts

Increase transparency

THATS ALL FOLKS