



EXPLAINABLE SENTIMENT ANALYZER

An interactive application to score
sentiment in user given text.

Presented by Eric Ortega Rodriguez
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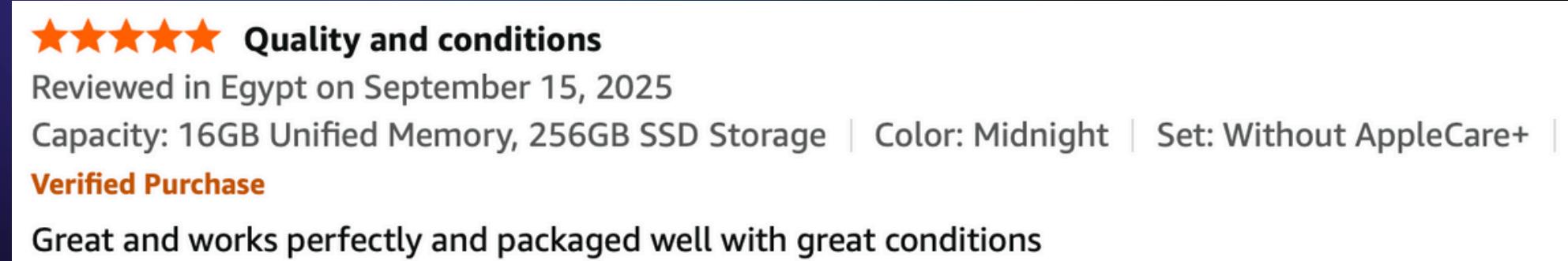
OVERVIEW

✓ **BERT model to classify sentiment**

- Analyzes the sentiment of a given text relating to a product review
- Produces a score of how positive it is and how confident the model is in this scoring

✓ **SHAP to explain positivity of each word**

- Displays which words are considered more positive or more negative as an explanation of the BERT model
- Provides the most influential words that drove the prediction and sentiment scoring



★★★★☆ Pretty, Not strong.

Reviewed in the United States on October 5, 2025

Color: Cream Wine Red | Size: for iPhone 15 Pro Max | **Verified Purchase**

Really pretty case, not the best at protecting the phone. I bought it in wine and the blueish chrome color. The side edges aren't raised enough to protect the screen from damage if the phone falls. If I didn't have a screen protector on, I'd 100% have a cracked screen. Another issue is the finishing comes off the back where the bubbles are raised. I got the same one in blue chrome and while both of these are gorgeous and feel great in the hands, the protection aspect of this phone case is lacking. Great and cheap but not protective in my honest opinion. Would not purchase again after going through 2 phone cases in such short time.

Motivation

- Analyzing product reviews to explain an overall view of the product from customer statements
- Can be used for detecting hate comments/reviews in the future



HOW TO USE

✓ **Single Review Analysis:**

Input any sentence or review.

- Sentiment label (positive / neutral / negative)
- Positivity score (0–100)
- Model confidence
- SHAP explanation showing which tokens push the prediction up or down
- Top influential words plot

✓ **Batch Analysis:**

Upload a CSV with one row per review.

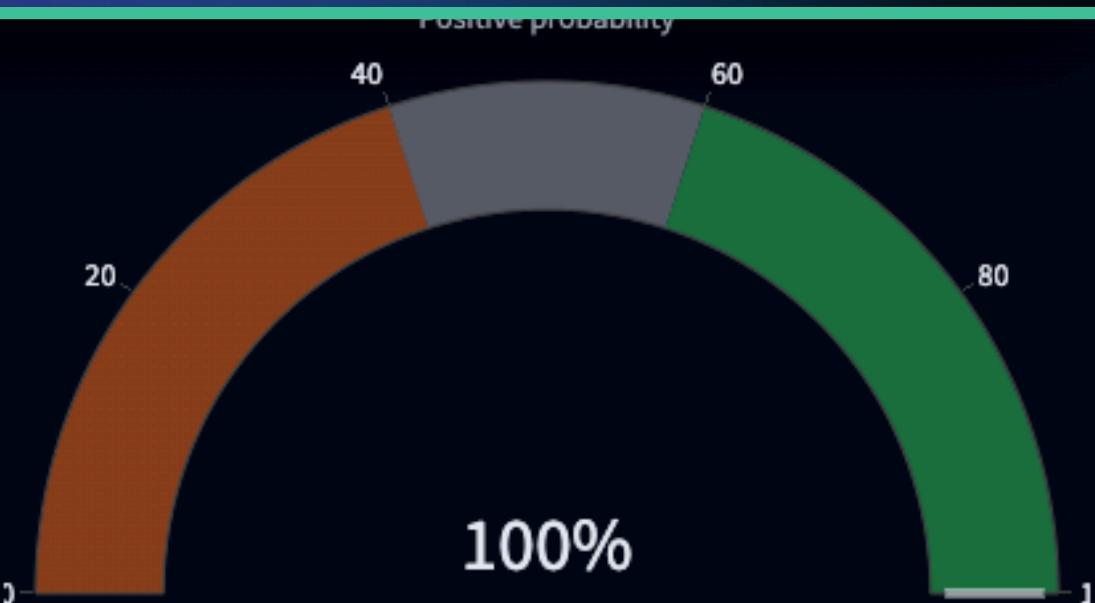
- Select the column containing review text
- Optionally skip a "note" first row
- Score multiple rows at the same time
- Download a results CSV

 Positive

99%

Key drivers

positive drivers: amazing, exceeded , Absolutely | negative drivers: ., all



Positive tokens

8

 Negative tokens

1

 Neutral tokens

1

Contribution balance

Positive 95%

Negative 5%

Model confidence

Explanation

Top Drivers

Sentence-level explanation (SHAP heatmap)

This

product

exceeded

all

my

expectations

.

Absolutely

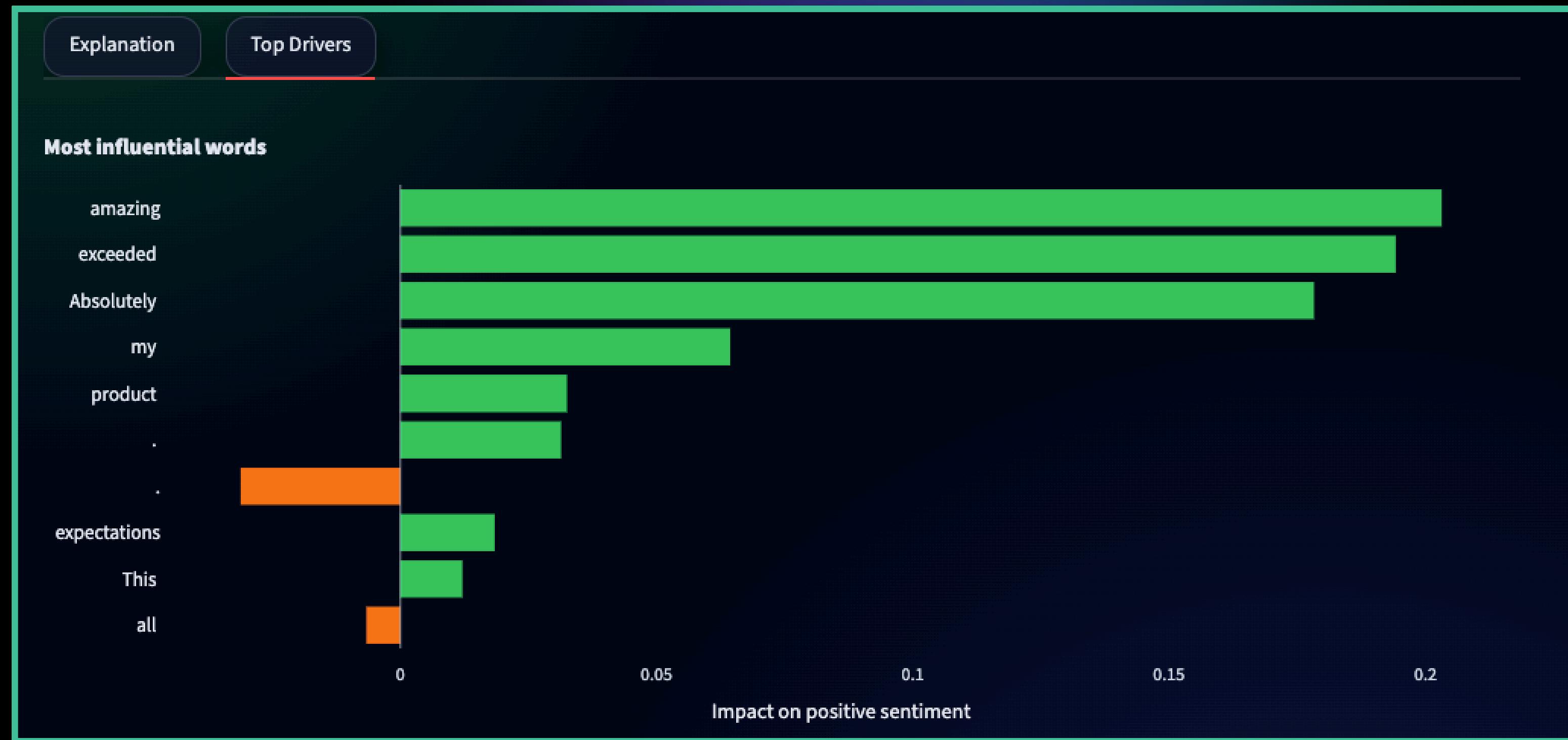
amazing

.

Strongest positive: **0.203** · Strongest negative: **-0.031**

Positive contribution

Negative contribution



LIVE DEMO





THANK YOU

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