

Review Sentiment Analyzer

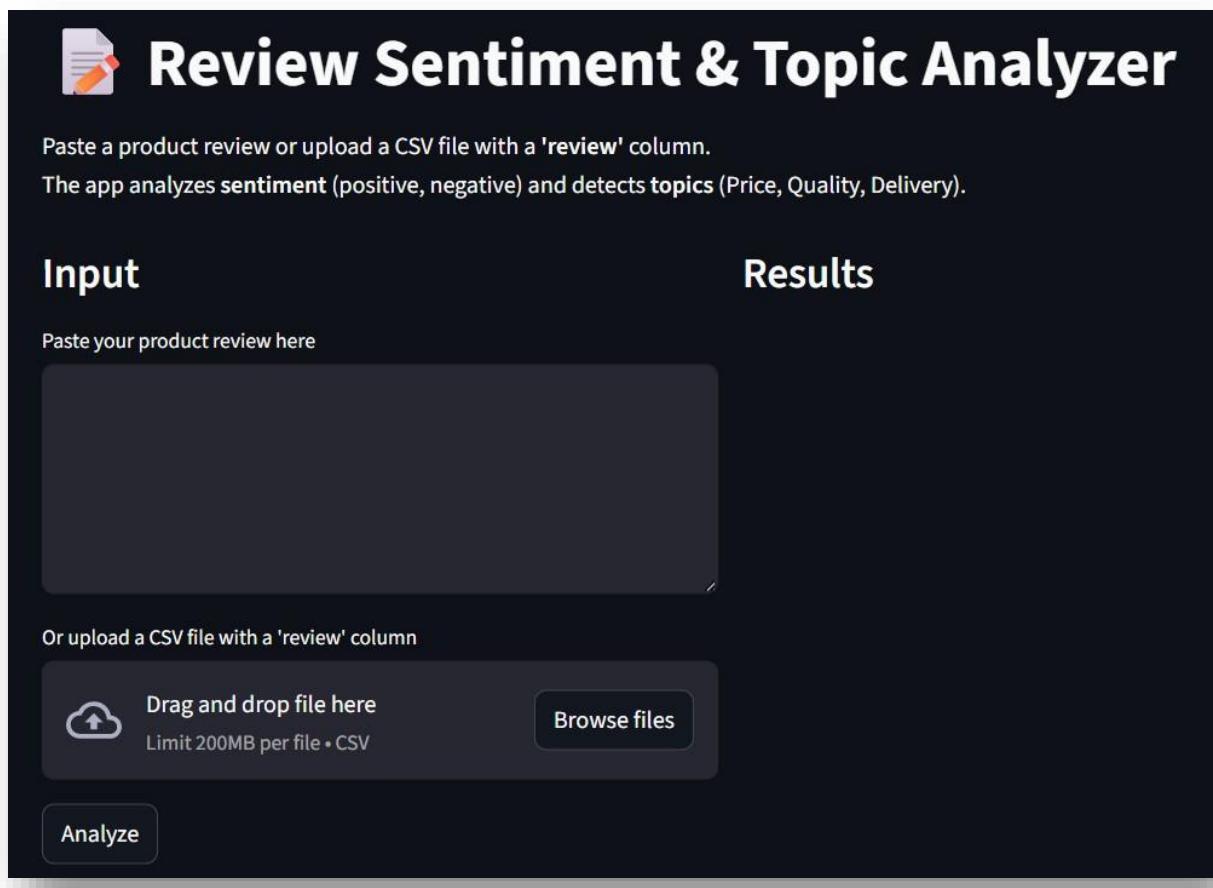
Introduction

Presenting you my NLP-based web app - the **Review Sentiment Analyzer**.

It's a tool that helps users understand customer feedback by analyzing the sentiment (positive or negative) and identifying key topics like price, quality, and delivery from product reviews.

The app is built with:

- Python
- Streamlit for the user interface
- Hugging Face Transformers for sentiment analysis



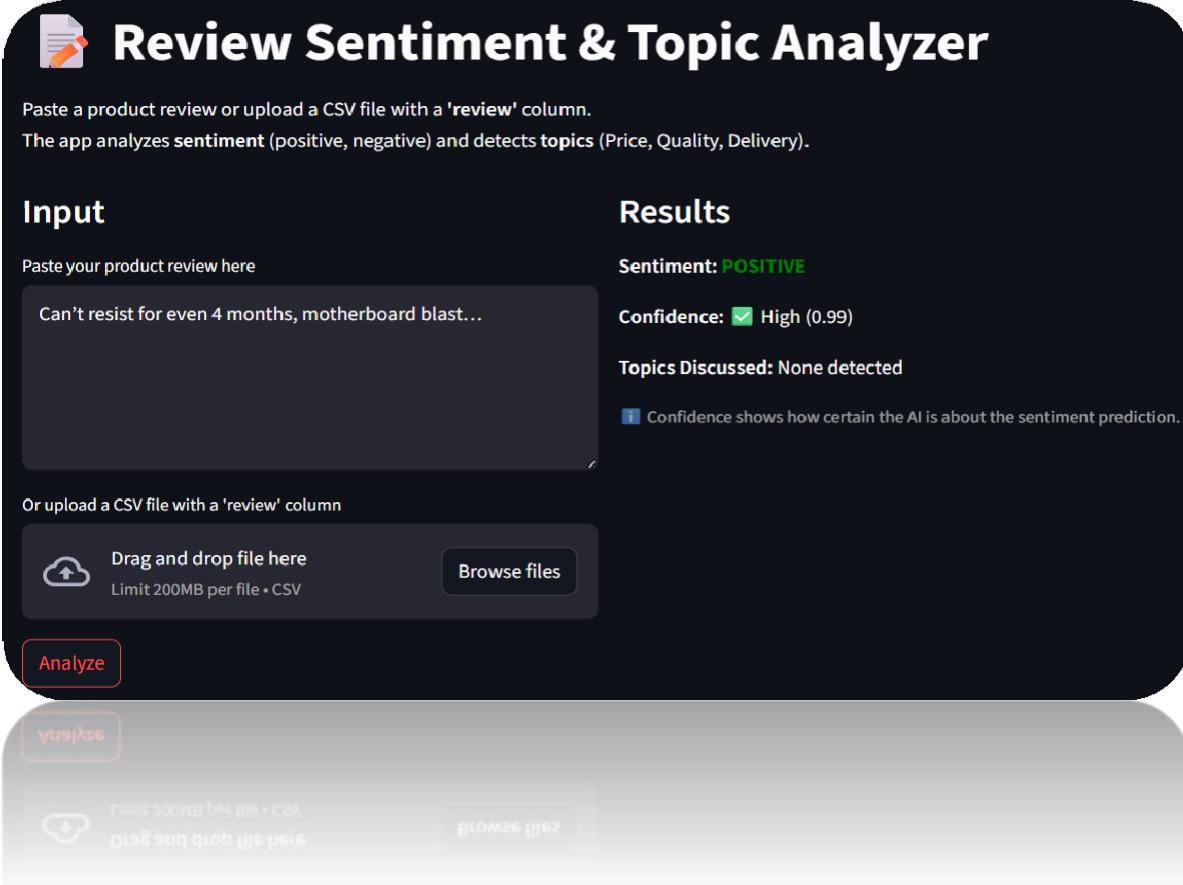
The screenshot shows a Streamlit application with a dark theme. At the top, there is a logo consisting of a document with a pencil icon and the text "Review Sentiment & Topic Analyzer". Below the logo, a subheader reads: "Paste a product review or upload a CSV file with a 'review' column. The app analyzes **sentiment** (positive, negative) and detects **topics** (Price, Quality, Delivery)."

The interface is divided into two main sections: "Input" on the left and "Results" on the right. The "Input" section contains a text input field with placeholder text "Paste your product review here" and a large dark gray area for pasting text. Below this, there is a button labeled "Or upload a CSV file with a 'review' column". A file upload component with a cloud icon and the text "Drag and drop file here" is shown, along with a "Browse files" button and a note "Limit 200MB per file • CSV". At the bottom of the "Input" section is a blue "Analyze" button. The "Results" section is currently empty.

Analyzing a Single Review

Users can simply paste a product review into the text box. With one click, the app returns:

- The overall **sentiment**
- A simple **confidence rating** (High, Medium, Low)
- Topics mentioned in the review (if any)



Paste a product review or upload a CSV file with a 'review' column.
The app analyzes **sentiment** (positive, negative) and detects **topics** (Price, Quality, Delivery).

Input

Paste your product review here

Can't resist for even 4 months, motherboard blast...

Or upload a CSV file with a 'review' column

Drag and drop file here
Limit 200MB per file • CSV

Analyze

Results

Sentiment: **POSITIVE**

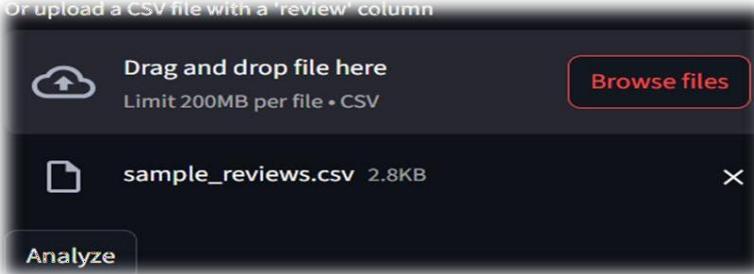
Confidence: High (0.99)

Topics Discussed: None detected

信心指数显示AI对情感预测的确定程度。

Uploading a CSV for Bulk Analysis

For larger datasets, users can upload a .csv file with a column named review. The app processes each review automatically and provides insights at scale



Or upload a CSV file with a 'review' column

Drag and drop file here
Limit 200MB per file • CSV

sample_reviews.csv 2.8KB

Analyze

Viewing the Results

Once reviews are analyzed, the results appear in a neat table showing:

- The original review
- Sentiment
- Confidence label
- Topics mentioned

This makes it easy to quickly scan for patterns and issues in customer feedback.

Sentiment Summary

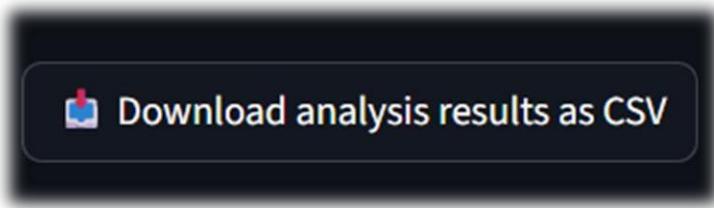
- Positive: 30
- Negative: 19

	review	Sentiment	Confidence	Topics
0	The smartphone's battery life is amazing, and the price was fair. Delivery was quick too.	POSITIVE	<input checked="" type="checkbox"/> High (0.99)	Price, Delivery
1	Poor fabric quality on these clothes, and the shipping took forever.	NEGATIVE	<input checked="" type="checkbox"/> High (0.99)	Quality, Delivery
2	The blender works well, but it's quite expensive for what it does.	POSITIVE	<input checked="" type="checkbox"/> High (0.99)	Price
3	Fantastic headphones with great sound quality. Delivered on time.	POSITIVE	<input checked="" type="checkbox"/> High (0.99)	Quality
4	Late delivery ruined the excitement of receiving my new jacket.	NEGATIVE	<input checked="" type="checkbox"/> High (0.99)	Delivery
5	The coffee maker is affordable and brews fast, but the quality isn't the best.	NEGATIVE	<input checked="" type="checkbox"/> High (0.99)	Quality
6	Terrible customer service. The product arrived damaged and was overpriced.	NEGATIVE	<input checked="" type="checkbox"/> High (0.99)	Price, Delivery
7	These running shoes are comfortable and arrived earlier than expected.	POSITIVE	<input checked="" type="checkbox"/> High (0.99)	Delivery
8	The laptop is too expensive, but the build quality justifies it.	POSITIVE	<input checked="" type="checkbox"/> High (0.99)	Price, Quality
9	Food delivery was late, but the taste was excellent.	POSITIVE	<input checked="" type="checkbox"/> High (0.99)	Delivery

Table showing sentiments and topics for each review

Exporting the Results

After analysis, users can click a button to download the entire dataset including all sentiments, confidence levels, and topics as a .csv file. This is useful for reporting or further analysis.



 Download analysis results as CSV

Tech Stack & What's Next

Tech Stack:

- Python
- Streamlit
- Hugging Face Transformers
- Pandas

GitHub: [Click](#)

Possible Improvements:

- Add support for neutral sentiment
- Use more advanced topic detection
- Visualize results (charts, graphs, summaries)
- Deploy the app online for live testing
- Add support for other languages

Thank you for checking out the project