News Article Data

january_news.json

Unit of observation

Each record in the "news" list represents a single news article related to Nvidia stock. Every article includes a timestamp, headline, and summary. This dataset contains only articles published between January 6 and January 31.

Variables

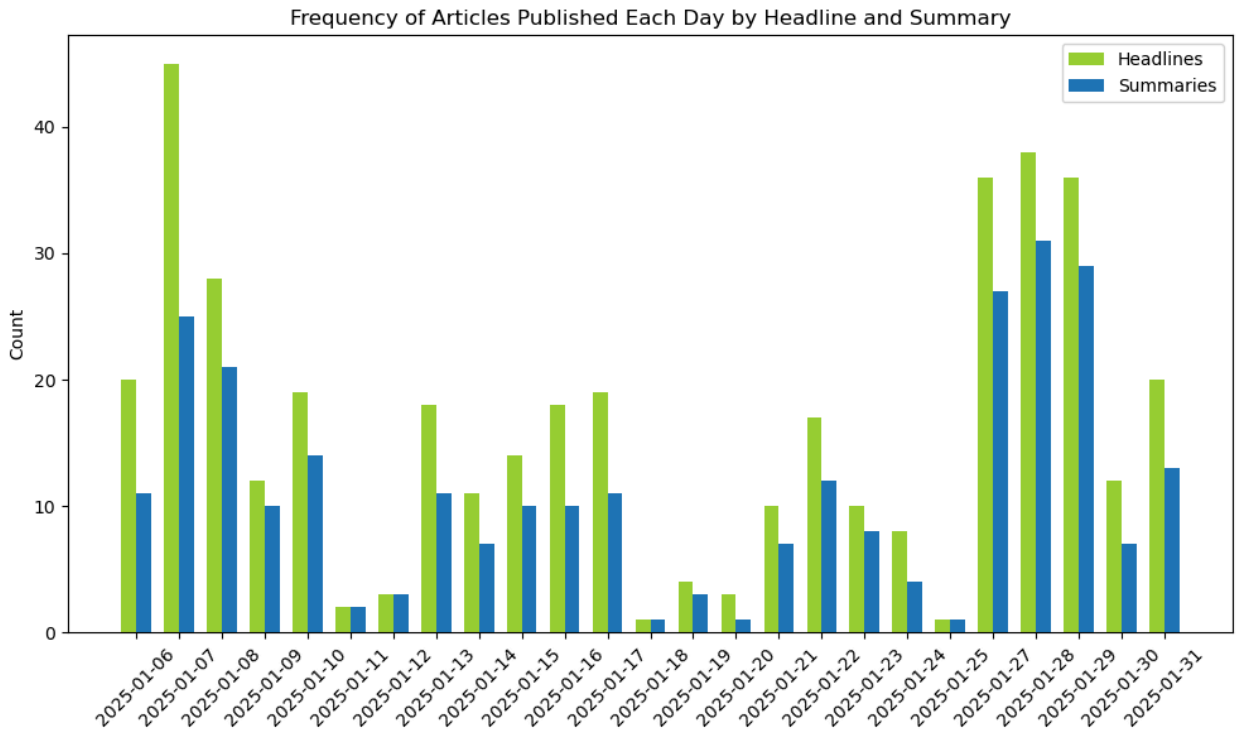
1. created_at
    a. The date and time when the news article was published (UTC timezone, ISO 8601 format)
    b. Data type: DateTime
    c. Missing values: 0 (405(0))
2. headline
    a. The title of the news article
    b. Data type: String
    c. Missing values: 0 (405(0))
3. summary
    a. A brief summary of the news article content
    b. Data Type: String
    c. Missing values: 126 (405(126))

Frequency Table

Date Published	Headline Count	Summary Count
2025-01-06	20	11
2025-01-07	45	25
2025-01-08	28	21
2025-01-09	12	10
2025-01-10	19	14
2025-01-11	2	2
2025-01-12	3	3

2025-01-13	18	11
2025-01-14	11	7
2025-01-15	14	10
2025-01-16	18	10
2025-01-17	19	11
2025-01-18	1	1
2025-01-19	4	3
2025-01-20	3	1
2025-01-21	10	7
2025-01-22	17	12
2025-01-23	10	8
2025-01-24	8	4
2025-01-25	1	1
2025-01-27	36	27
2025-01-28	38	31
2025-01-29	36	29
2025-01-30	12	7
2025-01-31	20	13

Frequency Distribution



news_data.cvs

Unit of observation

This file contains the same content as the "news" list described above. Each row represents a single news article related to Nvidia stock and includes its timestamp, headline, and summary. The dataset covers articles published between January 6 and January 31, except that no articles about Nvidia were published on January 26.

Variables

- date
  - The date and time when the news article was published (UTC timezone, ISO 8601 format)
  - Data type: DateTime
  - Missing values: 0 (405(0))
- headline
  - The title of the news article
  - Data type: String
  - Missing values: 0 (405(0))
- summary
  - A brief summary of the news article content

    - Data Type: String
    - Missing values: 126 (405(126))

Frequency Table

Same as the one for january_news.json.

Frequency Distribution

Same as the one for january_news.json.

news_data_processed.csv

Unit of observation

Each row in this file represents an aggregated news summary for a specific date, covering January 6 through January 31. For each date, the headlines (and summaries, when available) of all articles published on that day are combined into a single text block. This aggregation is performed so that sentiment analysis can generate an average sentiment score—ranging from 0 (bearish) to 1 (bullish)—for each day.

Variables

- date
    - The date (formatted as YYYY-MM-DD) for which news items have been aggregated
    - Data Type: Date
    - Missing values: 0 (25(0))
- text
    - A concatenated text string that aggregates multiple headlines (and summaries) for the corresponding date.
    - Datatype: String
    - Missing values: 0 (25(0))

Nvidia Stock Price Data

prices_data.cvs

Unit of observation

Each row represents the recorded opening price of Nvidia stock for a trading day between January 6 and January 31. Note that there is no price data available for weekends.

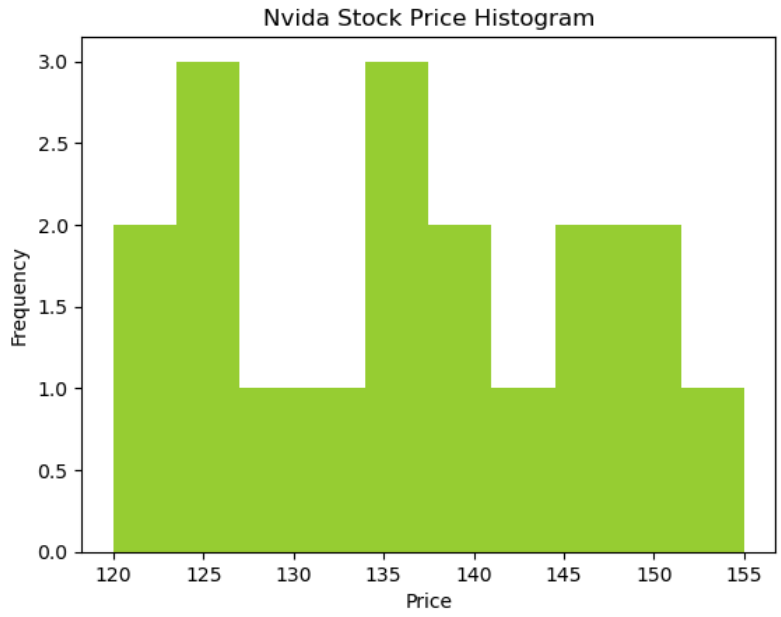
Variables

- date
  - The date for which the Nvidia opening price is recorded
  - Data Type: Date (YYYY-MM-DD)
  - Missing values: 0 (20(0))
- price
  - The opening price Nvidia stock of a given date
  - Data Type: Float
  - Missing values: 0 (20(0))

Summary Statistics

Count	18.00
Mean	136.33
Standard deviation	9.68
Minimum	121.81
25%	127.37
50%	137.07
75%	144.14
Maximum	153.03

Histogram



Sentiment Analysis and Comparative Analysis Data

sentiment_scores.csv

Unit of observation

Each row represents a specific date for which news articles were processed and a sentiment score was computed.

Variables

- date
    - The date on which the news articles were analyzed, formatted as YYYY-MM-DD.
    - Data Type: Date
    - Missing values: 0 (20(0))
- Sentiment Score
    - A numerical value between 0 and 1 representing the overall sentiment of the news articles for a given date.
        - **0** corresponds to extremely negative sentiment.
        - **1** corresponds to extremely positive sentiment.
    - Data Type: Float
    - Missing values: 0 (20(0))

scores_with_prices.csv

Unit of observation

Each row represents a trading day for which both a news sentiment score and stock price data are available.

Variables

- date
    - The calendar date of the trading date, formatted as YYYY-MM-DD
    - Data Type: Date
    - Missing values: 0 (17(0))
- Sentiment Score
    - A floating-point number between 0 and 1 representing the average sentiment of news articles on NVIDIA stock for the trading day
    - Data Type: Float
    - Missing values: 0 (17(0))
- price
    - The opening stock price for the trading day, expressed in U.S. dollars (USD).

    - Data Type: Float
    - Missing values: 0 (17(0))
- Next Day Price
    - The opening stock price of the subsequent trading day, expressed in USD.
    - Data Type: Float
    - Missing values: 0 (17(0))
- Price Delta
    - The change in the opening price from the current trading day to the next, calculated as: Price Delta = Next Day Price - price
    - Data Type: Float
    - Missing values: 0 (17(0))