Introduction à l'analyse de sentiment

AlgoETS

Basée sur le travail de Mohamed et Raphael Présentée par Antoine

Pourquoi?



Mentions sur les réseaux sociaux:

Perception

Popularité

Topic



Commentaires d'avis sur les produits:

Qualité

Avis

Fréquence



Tickets d'assistance entrants en temps réel:

Détecter les clients mécontents

Probleme fréquence

Identifier des Sentiments

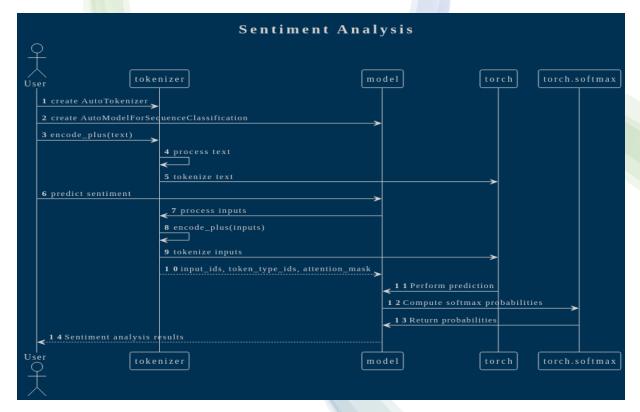
- Figure de style
- Ponctuation, UpperCase, Nombre de mots
- Mots d'un dictionnaire de lexicon
 - Lexiques des sentiments et émotions du CNRC (975 CAD\$)
- Emoticons
- Hashtags
- NLP (Natural Language Processing)
 - Vader
- Pre-Trained Model
 - (Hugging Face, GPT, Claude)

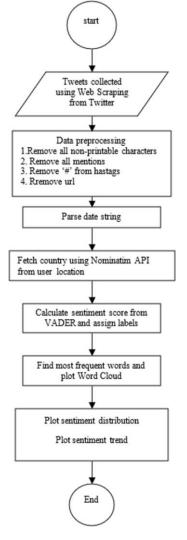


Quantification

Sentiment Score $(w) = log_2 \frac{freq(w, positive) * freq(negative)}{freq(w, negative) * freq(positive)}$

- Pourcentage
 - [0, 1]
 - 1-100%
- Notes sur 5
 - Very positive(5),
 - Positive(4)
 - Neutral(3),
 - Negative(2),
 - Very negative(1)





Pipeline pour Opinion Mining

- Web Scraper ou API (Twitter, Reddit, Commentaire)
- Nettoyer les données
- Structurer les données dans une base de données
- Classification des sentiments avec Pre-Trained model
- Analyse des sentiments avec les metadata des utilisateurs

https://www.researchgate.net/publication/366625991 A statistical analysis of tweets on covid-19 vaccine hesitancy utilizing opinion mining an Indian perspective/figures

Nvidia Stock: A Buy After U.S. Regulation On Chip Exports

Date: Nov. 07, 2023 8:50 AM ET | Tickers: NVIDIA Corporation (NVDA) | 6 Comments | 2 Likes



Summary

- The new U.S. export control regulations will affect Nvidia's revenue contribution from China.
- But Nvidia's AI chips are sought after by companies around the world, and the Indian AI market in particular might be a new growth frontier for Nvidia.
- NVDA stock is a Buy now, as the actual impact of the U.S. chip export regulations is most probably less substantial than what the market is expecting.
- Looking for more investing ideas like this one? Get them exclusively at Asia Value & Moat Stocks. Learn More »

Nvidia Stock Rating

My Buy investment rating for **Nvidia Corporation** (NASDAQ:NVDA) shares remains unchanged. Previously, I wrote about Nvidia's \$25 billion share buyback program and its Data Center business' outlook in my prior article published on August 28, 2023.

With the current update, my attention turns to the latest U.S. chip export regulations and their impact on NVDA. The growth potential of the Indian AI market, and the allocation of a bigger proportion of its AI chips to key partners suggest that the new U.S. export control regulations for China have a smaller-than-expected effect on Nvidia's business and results. As such, I am sticking to my existing Buy rating for NVDA.

The U.S. Is Restricting Chip Sales To China



Summary

Investing Group Leader

- The new U.S. export control regulations will affect Nvidia's revenue contribution from China.
- But Nyidia's All chips are sought after by companies around the world.

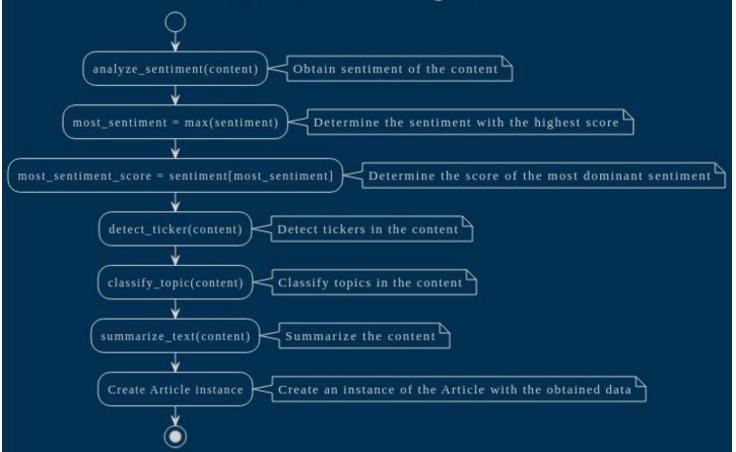
Base de données



```
{
    'title': 'Latest AI Advancements',
    'url': 'https://theaijournal.com/latest-ai-advancements',
    's entiment_score': 0.8,
    's entiment': 'Positive',
}
```

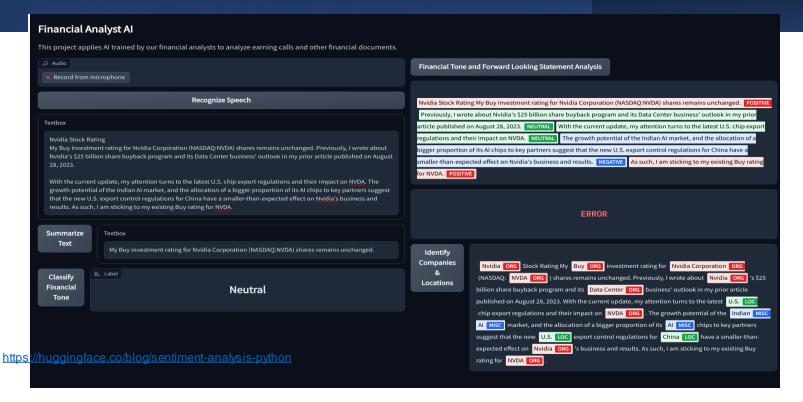
S.No	Attribute	Description	Data type
1	user_name	Twitter handle	String
2	user_location	The location of the user	String
3	user_description	Description of the user	String
4	user_created	Date of account creation	String
5	user_followers	Total followers of user	Integer
6	user_friends	Total people the user follows	Integer
7	user_favourites	A total number of tweets liked by the user	Integer
8	user_verified	Is the user officially verified by Twitter	Boolean
9	text	Tweet content	String
10	date	The date publishing the tweet	String
11	hashtags	The hashtags used in the tweet	List
12	is_retweet	Is the tweet retweeted	Boolean
13	Source	The device used for tweeting	String

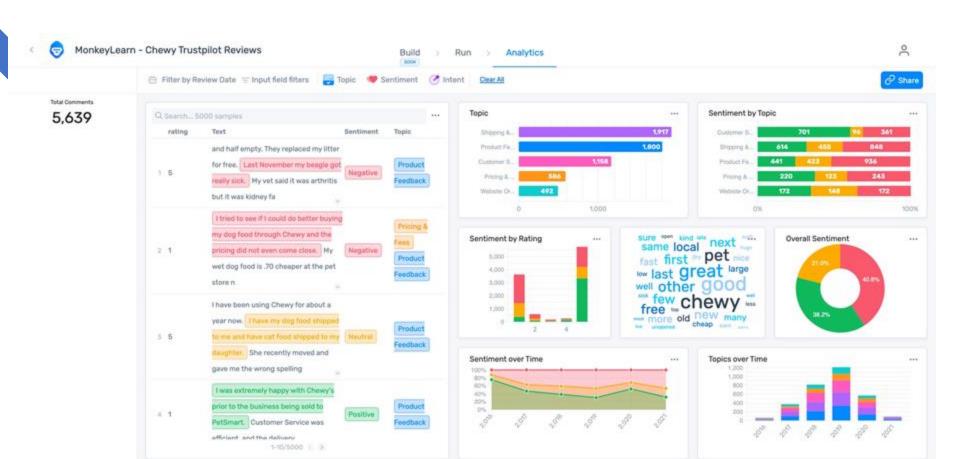
Article Processing Flow



```
I OL . DAM CC. 27 HAROTCHÁAM
It took 107.10 seconds to analyze 5727 comments in 80 posts in 4 subreddits
Posts analyzed saved in titles
10 most mentioned picks:
AI: 18
NVDA: 17
DIS: 14
MSFT: 14
AAPL: 10
  Y: 10
....E: 6
AMZN: 6
TSLA: 6
Sentiment analysis of top 5 picks:
     Bearish Neutral Bullish Total/Compound
       0.066
               0.811
                        0.123
                                       0.289
ΑI
               0.863
NVDA
       0.053
                       0.084
                                       0.133
DIS
       0.185
               0.609
                       0.207
                                       0.092
                                       0.077
MSFT
       0.069
               0.856
                       0.074
AAPL
       0.086
               0.805
                                      -0.042
                                                   ⑤
```

Analyse





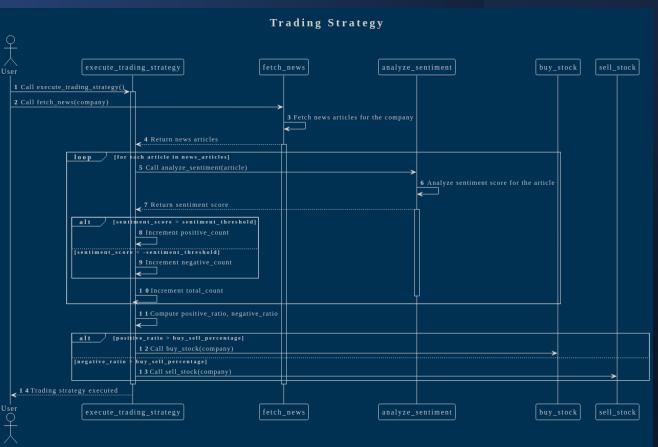
```
Sentiment Score (w) = log_2 \frac{freq(w, positive) * freq(negative)}{freq(w, negative) * freq(positive)}
```

Période de temps

```
Sentiments
        recuperer le daily sentiment de plusieurs traders crypto
In [ ]:
         from datetime import datetime, timezone
         startDate = datetime(2021, 8, 20, 0, 0, 0, tzinfo=timezone.utc).isoformat('T')
         endDate = datetime(2022, 4, 21, 0, 0, 0, tzinfo=timezone.utc).isoformat('T')
         twitter = TwitterScrapper()
         df sentiments = twitter.get average sentiments 8h(['RektProof', 'TheBootMex','ByzGeneral','AlgodTrading','0xUniha
In [ ]:
         df sentiments
         df sentiments=df sentiments.merqe(data, left index=True, right index=True, how='inner')
In [ ]:
         df sentiments.head(30)
In [ ]:
         df sentiments['result'] = 0
         df sentiments.loc[(df sentiments['8h Average Sentiment'] > 0) & (df sentiments['pctChange'] > 0), 'result'] = 1
         df sentiments.loc((df sentiments('8h Average Sentiment') < 0) & (df sentiments('pctChange') < 0), 'result') = -1</pre>
         df sentiments
In [ ]:
         print(df sentiments[df sentiments['result'] == -1].shape[0])
         print(df sentiments[df sentiments['result'] == 0].shape[0]
         print(df sentiments[df sentiments['result'] == 1].shape[0])
```

https://github.com/AlgoETS/Cookiecutter-Strategie/blob/main/sandbox/funding.ipynb

Stratégie



Test the strategy

```
In [ ]:
         from backtesting import Backtest, Strategy
         from backtesting.lib import crossover
         class Funding(Strategy):
             def init(self):
                pass
             def next(self):
                 price = self_data_Close
                 funding = self.data.fundingRate
                 pctChange = self.data.pctChange
                 daily average=self.data['8h Average Sentiment']
                 if funding<0 and pctChange>0 and daily average>0:
                     self.buy(sl=0.90*price,tp=1.15*price) #open the long position
                 elif funding>0 and pctChange<0 and daily average>0 :
                     self.sell(sl=1.10*price,tp=0.90*price) #open the short position
         bt = Backtest(df sentiments, Funding,cash=25000, commission=.002,exclusive orders=True)
         output = bt.run()
         output
```



