

There are various approaches for converting text into vector

Label
Encoding

One Hot
Encoding

Bag Of Words

TF-IDF

Word
Embeddings



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[Elon Musk](#) wants time to prepare for a trial over his contentious withdrawal from an agreement to buy [Twitter](#) for \$44 billion, according to a filing in a Delaware chancery court by his attorneys on Friday.

Musk's team says the trial should wait until next year, after Twitter had requested expedited treatment and a hearing as early as this September.

Apple leaks have revealed that iPhone 14 Pro models will receive multiple upgrades and higher pricing. But now a new report claims standard iPhone 14s will also receive a price bump, despite being virtually unchanged from their predecessors.

Speaking to [The Sun](#), Dan Ives, head of popular analyst group Wedbush, said supply chain prices as the driving force behind the increase.



Apple CEO Tim Cook says there's at least one question your iPhone can't answer: How do you build a life that provides both meaning and fulfillment?

Luckily, Cook himself has some advice on that front. At Gallaudet University's commencement ceremony in Washington D.C. last month,

The Tesla Model 3 Long Range topped the charts with a 74.2/100 "greenpower" rating. It's impressive given the car's relatively low cost. The Model 3 LR has a battery size of 83.0 kWh and a charging speed of 18.0 miles/minute.

Meanwhile, the [Lucid Air ranked second](#) in the ratings with 70.5/100 greenpower. It's impressive given the car's relatively low cost. The Lucid Air has a battery size of 112 kWh and a charging speed of 18.0 miles/minute. It's more expensive than the Model 3 LR at 451 miles versus Tesla's 358 miles. However, the Air's charging speed is faster.



As [Apple](#) seeks to bolster its subscription service to compete with Spotify, the company is adding exclusive performances from artists, who will record in Apple's studios to cover classics and recreate their own hits.

On Friday, the company introduced Apple Music Sessions, featuring performances from singers including Carrie Underwood and Tenille Townes.

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Meanwhile, the **Lucid Air** ranked second in the ratings with 70.5/100 greenpower. It's impressive despite having the largest battery of 112 kWh among all the cars that made it to the list, with 450 miles, than the Model 3 LR at 451 miles versus Tesla's 358 miles. However, the Air's charging speed is still slow.

Apple

As [Apple](#) seeks to bolster its subscription service to compete with Spotify, the company is adding exclusive performances from artists, who will record new songs in Apple's studios to cover classics and recreate their own hits.

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Tesla

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musk tesla iphone ipad model-3 cook itunes gigafactory ...



musk tesla iphone ipad model-3 cook itunes gigafactory ...

article 1



musk tesla iphone ipad model-3 cook itunes gigafactory ...

article 1

[0 **14** 0 0 **9** 0 0 **2** ...]



musk tesla iphone ipad model-3 cook itunes gigafactory ...

article 1

[0 **14** 0 0 **9** 0 0 **2** ...]

article 2

[0 0 **13** **6** 0 0 **3** 0 ...]

article 3

[**5** **7** 0 0  0 **1** 0 **4** ...]





musk tesla iphone ipad model-3 cook itunes gigafactory ...

Tesla

```
[ 0      14      0      0      9      0      0      2      ...  ]
```

article 1

article 2

article 3

```
[ 0 0 13 6 0 0 3 0 ... ]
```

article 2

[5 7 0 0 0 1 0 4 ...]

article 3

musk tesla iphone ipad model-3 cook itunes gigafactory ...

Tesla

article 1

[0 **14** 0 0 **9** 0 0 **2** ...]

Apple

article 2

[0 0 **13** **6** 0 0 **3** 0 ...]

article 3

[**5** **7** 0 0 0 **1** 0 **4** ...]



musk tesla iphone ipad model-3 cook itunes gigafactory ...

Tesla

article 1

[0 14 0 0 9 0 0 2 ...]

Apple

article 2

[0 0 13 6 0 0 3 0 ...]

Tesla

article 3

[5 7 0 0 0 1 0 4 ...]



**Urgent Business Assistance, There is 55
million \$ in your account, claim it hurry up**



Urgent Business Assistance, There is 55 million \$ in your account, claim it hurry up



[3, 0, 1, 0, 0, 0, 6, ..., 0]



Urgent Business Assistance, There is 55 million \$ in your account, claim it hurry up

[3, 0, 1, 0, 0, 0, 6, ..., 0]

Naïve Bayes Classifier

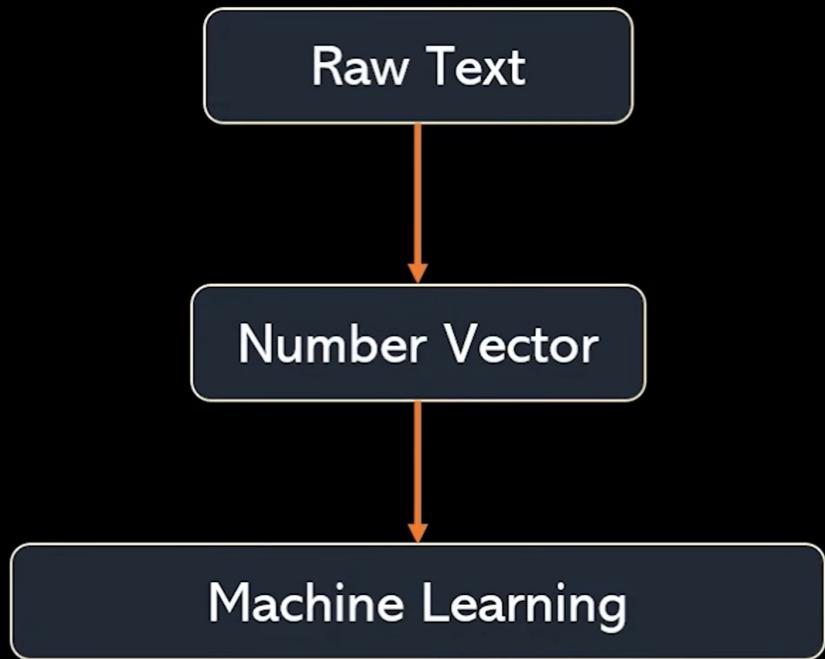


Spam



No Spam





Urgent Business Assistance, There is 55 million \$ in your account, claim it hurry up

[3, 0, 1, 0, 0, 0, 6, ..., 0]

Naïve Bayes Classifier



Spam



No Spam



play volleyball



Claim FREE money. Hurry up!



Playing helps health so play!





play volleyball



Claim FREE money. Hurry up!



Playing helps health so play!



claim, free, help, health, hurry, so,



play, money, up, volleyball

VOCABULARY

claim free help health hurry so play money up volleyball



claim free help health hurry so play money up volleyball

play volleyball



claim free help health hurry so play money up volleyball

play volleyball

[0 0 0 0 0 0 0 1 0 0 1]

Claim FREE money. Hurry up!



[1 1 0 0 1 0 0 1 1 0]

Playing helps health so play!

[0 0 1 1 0 1 2 0 0 0]





Doc 1

play volleyball

claim free help health hurry so play money up volleyball

$$[\begin{array}{ccccccccc} 0 & 0 & 0 & 0 & 0 & 0 & \mathbf{1} & 0 & 0 & \mathbf{1} \end{array}]$$

Doc 2

Claim FREE money. Hurry up!

```
[ -1 1 0 0 1 0 0 1 1 0 ]
```

Doc 3

Playing helps health so play!

[0 0 1 1 0 1 2 0 0 0]



Limitations of BOW (Bag of Words) model



add, auto, and assistance, need, I, immediately, help, ... urgent (100 k words)

I need help

[0 0 0 0 1 1 0 1 ... 0] \leftarrow vector size=100k



add, auto, and, assistance, need, I, immediately, help, ... urgent (100 k words)

I need help

[0 0 0 0 1 1 0 1 ... 0] \leftarrow vector size=100k

Sparse Representation



It may consume too much memory & compute resources

add, auto, and, assistance, need, I, immediately, help, urgent

I need help

[0 0 0 0 0 1 1 0 1 0]

I need assistance

[0 0 0 1 1 1 0 0 0 0]



Doesn't capture meaning of words properly