

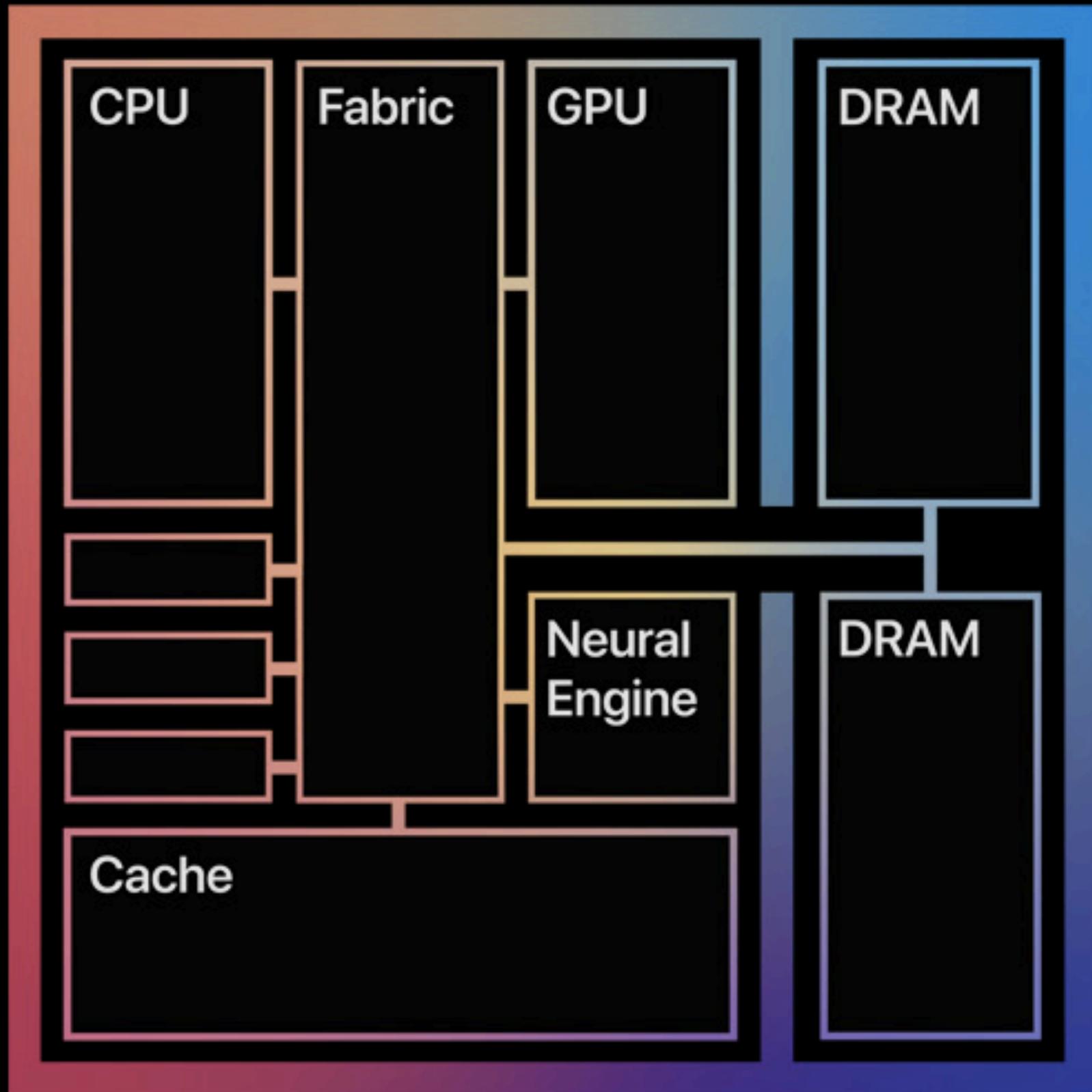


Apple M1

What do users think?

Christine Egan | January 2021

Why the M1?



Better Performance

Better Compatibility

Data: Twitter

Tweets containing “M1”



Data: Reddit

Posts and Comments Containing “M1”



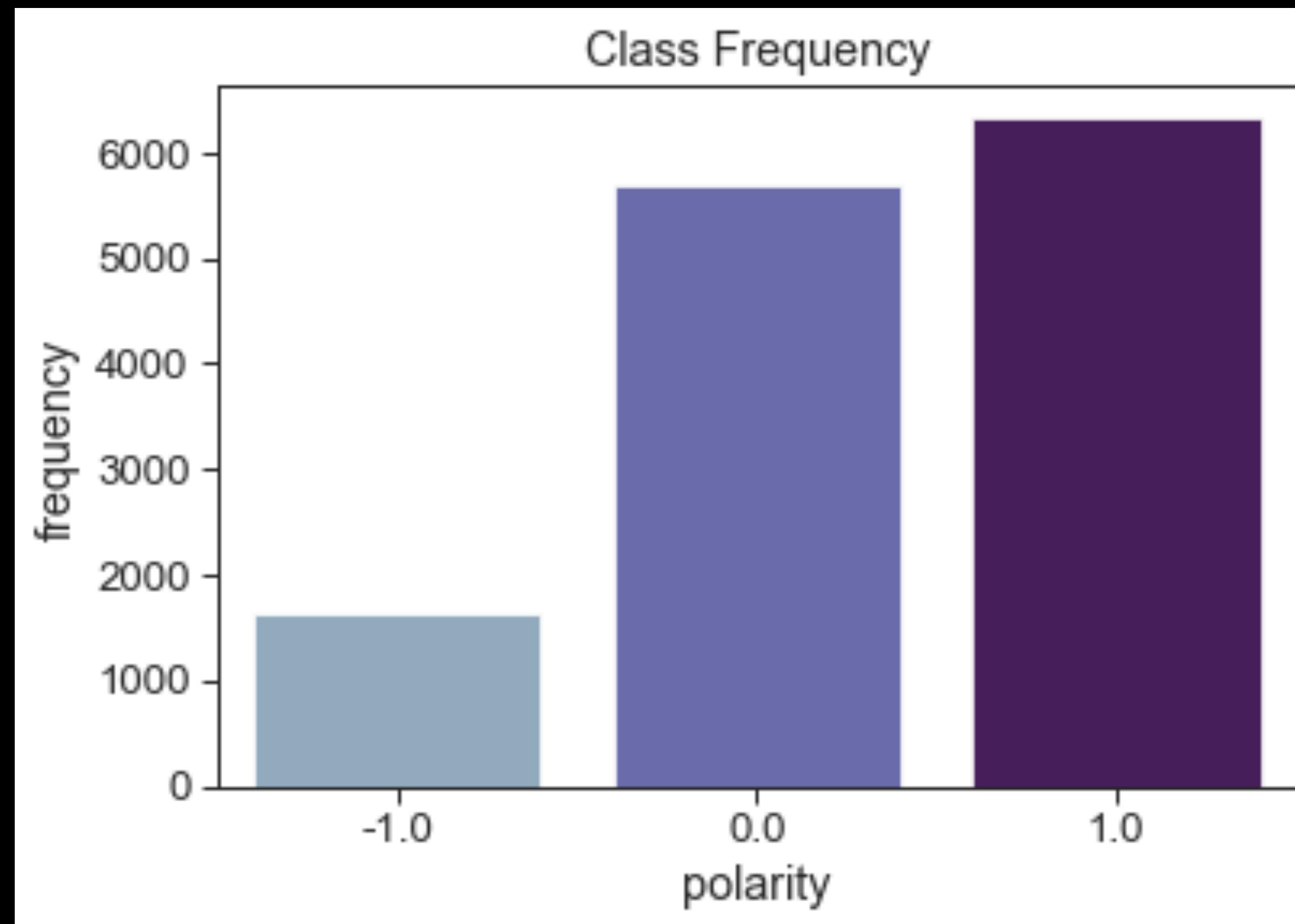
Apple, AppleM1, macOS, macsetups, hackintosh,
macmini, macbook Air, macbookpro, datascience,
MachineLearning, LearnMachineLearing, LearnPython

Methodology

- Build an application to collect data.
- Preprocess: Clean text, remove stops and lemmatize.
- Extract features: Text length, POS tags, subjectivity, and compound polarity.
- Label data as positive, negative, or neutral based on compound polarity.
- Create a model that will predict if an observation is positive, negative, or neutral.
- Make generalizations regarding each category.

What do users think?

Positive Reception



- From a sample of approximately 13,000:
 - Over 6300 (nearly one half) of the observations are positive.
 - 5700 are neutral.
 - A little over 1600 of the observations are negative.

Model

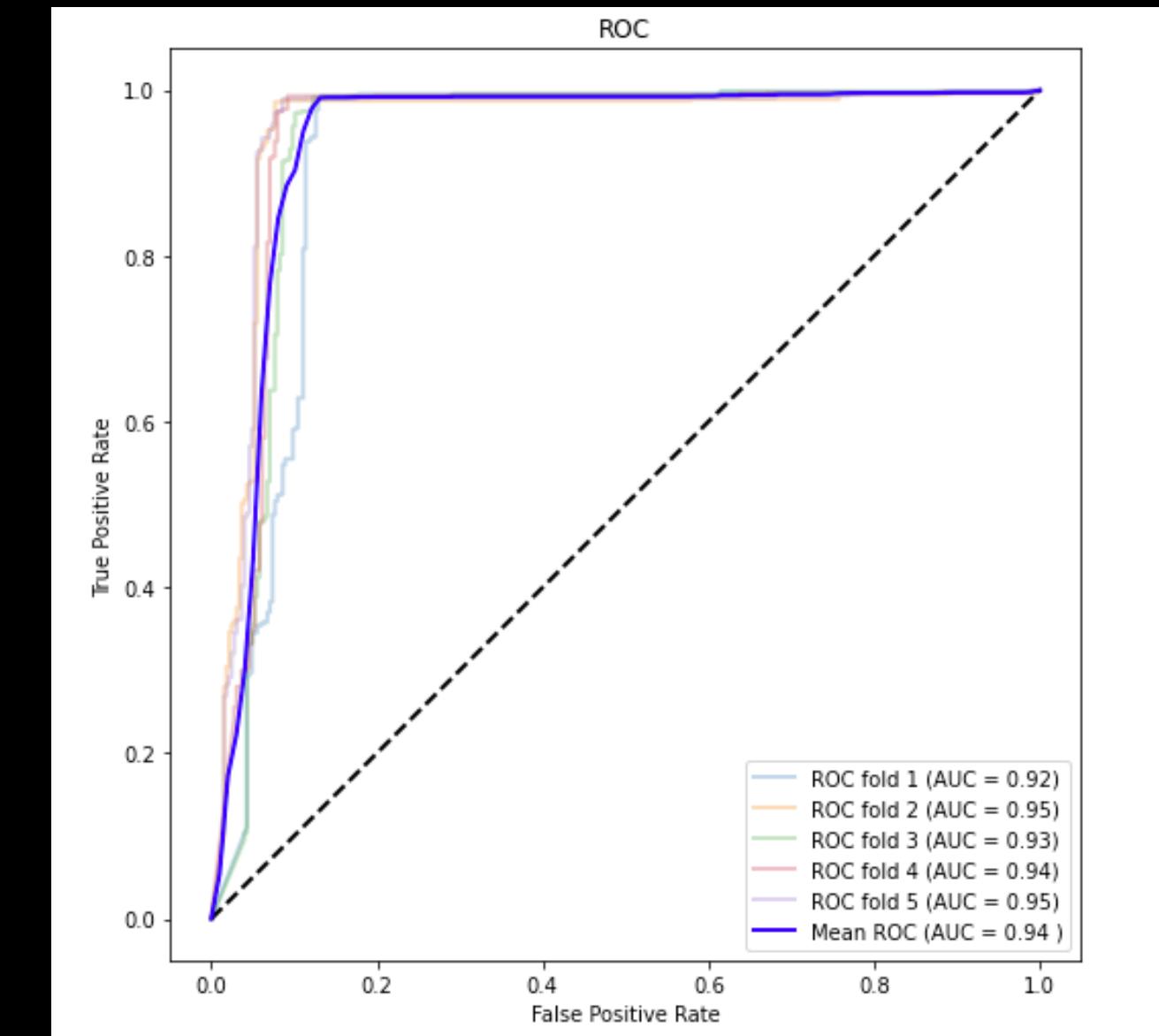
A model was deployed to detect if an observation was positive or negative.

The most reliable model:

- Accuracy of 61%.
- AUC was ~.95. This means that the model could distinguish well between true positives and false positives.

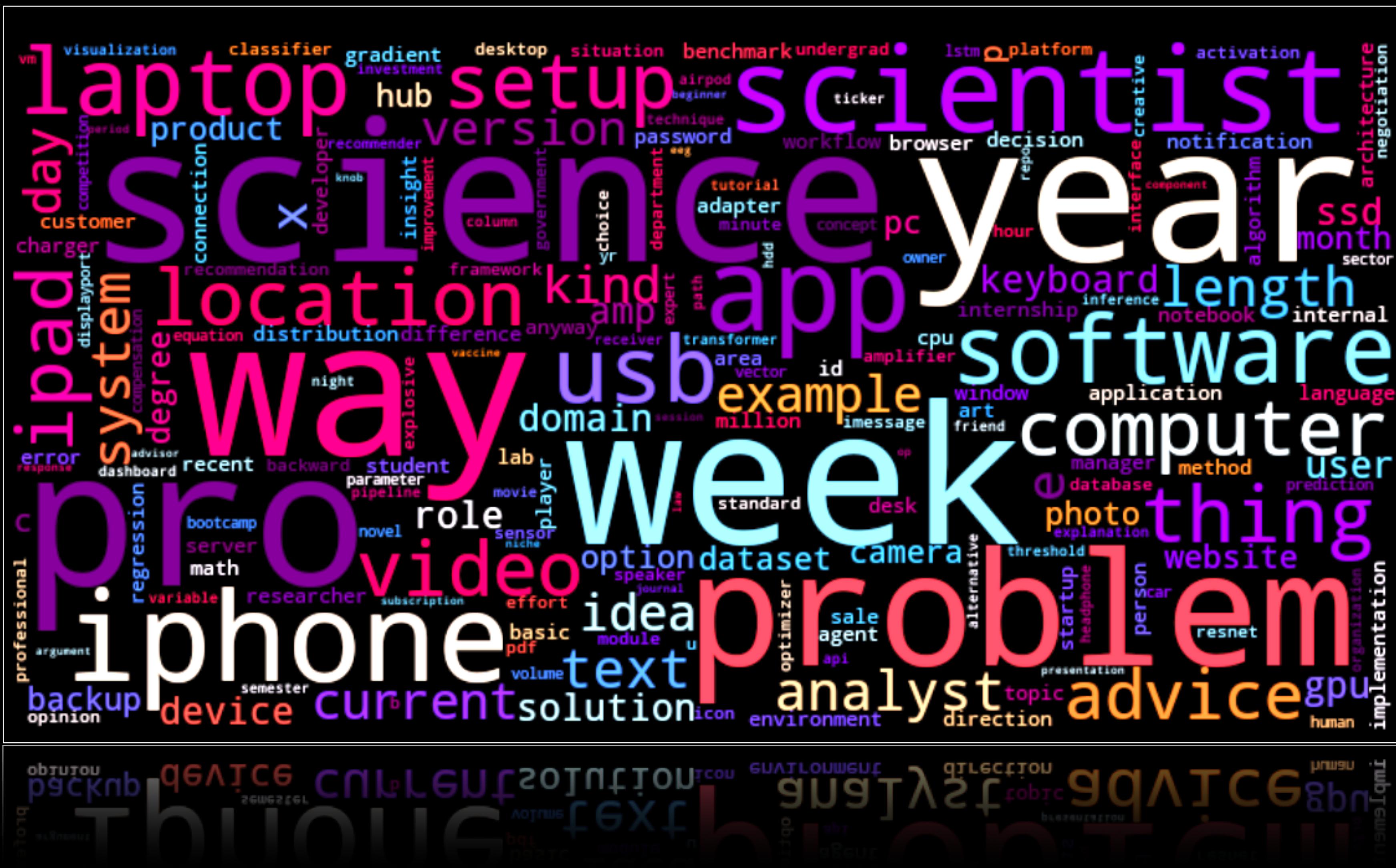
The model's strength was precision —

It limited the amount of false positives.

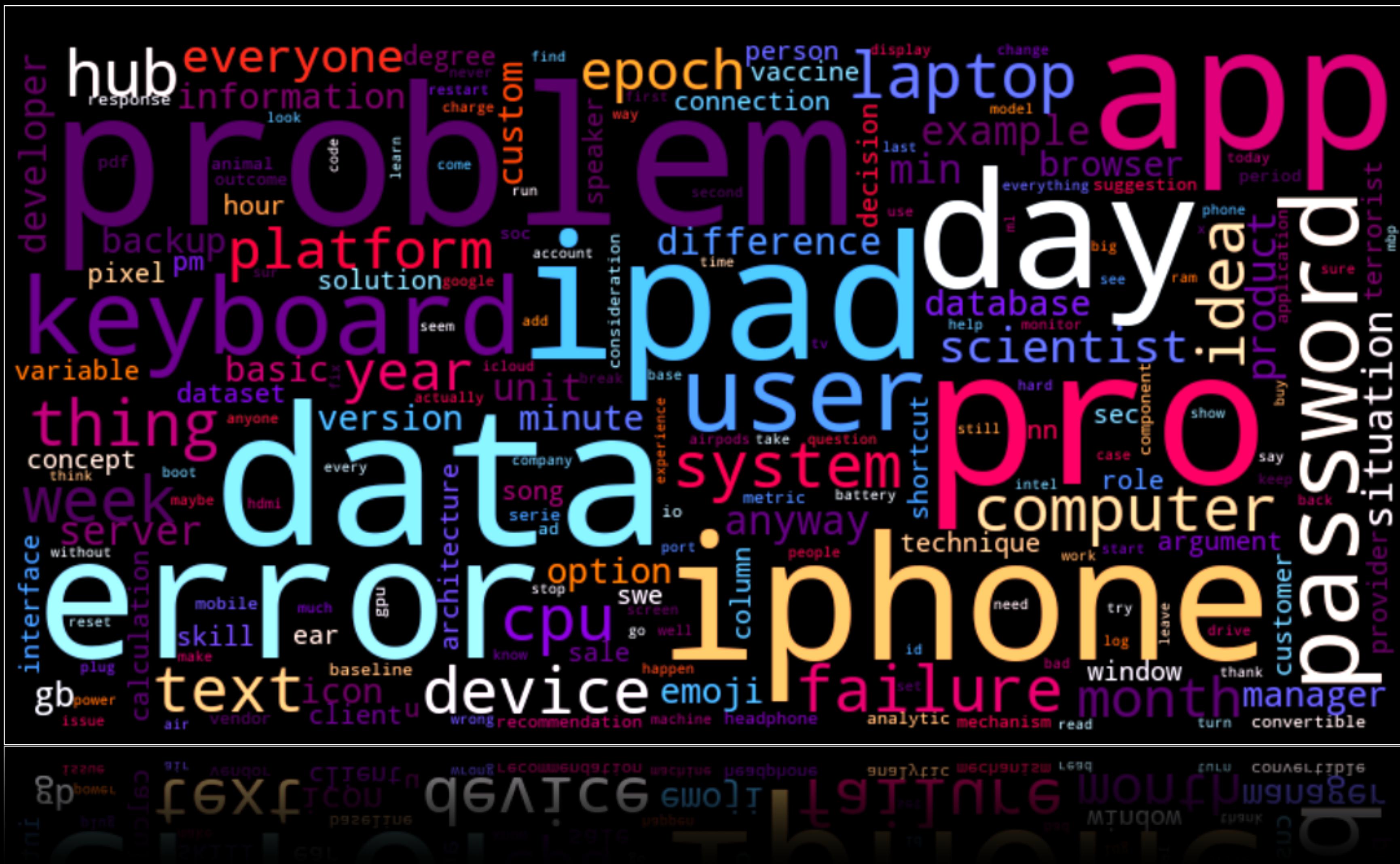


	Accuracy	AUC	Precision	Recall	F1
0	0.599371	0.918487	0.959064	0.518577	0.673166
1	0.581132	0.933486	0.965732	0.490506	0.650577
2	0.596855	0.944947	0.969834	0.508703	0.667359
3	0.605660	0.953950	0.977511	0.515823	0.675298
4	0.613836	0.952327	0.977974	0.526482	0.684481
mean	0.599371	0.940639	0.970023	0.512018	0.670176

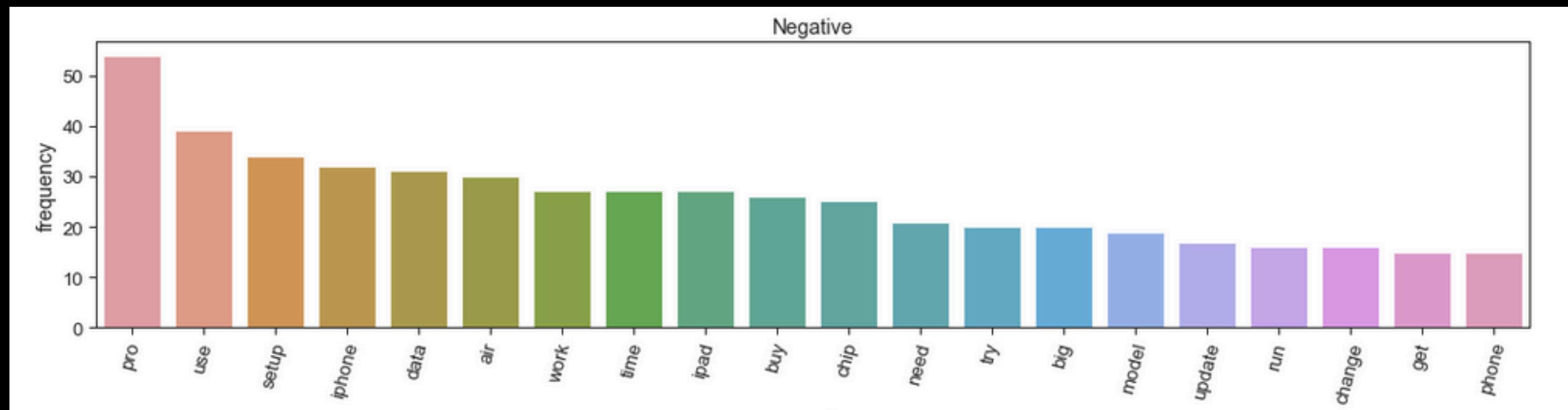
Most Frequent Words in Positive Class



Most Frequent Words in Negative Class



Better Compatibility: A Closer Look



- We see the words 'pro' and 'air' which might indicate that users are unhappy with these products.
- Call to action: Further investigate if users feel dissatisfied with the MacBook Air and MacBook Pro with the M1 chip.
- We also see the words iPad and phone — one of the major claims was that M1 would natively support a number of apps supported on the iPhone and iPad. Do users feel that the M1 lives up to this claim?
- Call to action: Further investigate if products with the M1 chip are living up to these claims.

Better Performance: A Closer Look

- Among positive observations, performance was mentioned 245 times.
- Among negative observations, performance was only mentioned once.

Recommendations

- Collect more data regarding the customer's perception of compatibility among other products in the Apple universe. Work towards increased compatibility in later updates and releases.
- Develop methods to deal with foreign words when collecting social media data.
- Capitalize on opportunities to highlight performance by reaching out to users with positive experiences and asking them about specific performance benchmarks. Expand efforts to learn more about user perception of performance.

Future Work

- Expand application to access data from additional platforms.
- Take advantage of time data to provide insights into user opinions over time.
- Stream data to a dashboard to analyze and update changing opinions in realtime.



Thank You!



Attributions

Images - [Apple Mac M1](#)

Icons - Ibrandify @ [IconsOut](#)

