



TWITTER

SENTIMENT ANALYSIS

"Helping you keep your finger on the pulse"





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NEXT STEPS





“Your brand is what people
say about you when you are
not in the room.”

—Jaffrey Benzos



BUSINESS PROBLEM



Knowing public perception is crucial for stakeholders with brands to maintain



Can you know in real-time how people are feeling about your company/product?



Social media and machine learning are revolutionizing brand management



APPROACH

STEP 1

Collect 2.8 million
labeled tweets



STEP 3

Preprocess with NLP
techniques



STEP 5

Deployment



STEP 2

Clean up and cut
down to 1.9 million



STEP 4

Iterative modelling
process



EVALUATION

	'Max Features'	'N-Grams'	Training Accuracy	Testing Accuracy	Testing Log Loss	Positive Recall	Neutral Recall	Negative Recall
Dummy	N/A	N/A	42.8%	42.6%	19.8	100%	0%	0%
M.N. Bayes	All	1	66.7%	61.6%	0.82	72.3%	29.3%	65.4%
Random Forest	10k	1, 2	67.6%	61.1%	0.86	74.8%	41.3%	74.8%
LogReg	30k	1, 2	66.5%	64.8%	0.76	68.5%	51.2%	67.2%
Final LogReg	75k	1, 2	77.2%	75.3%	0.51	81.3%	N/A	68.6%

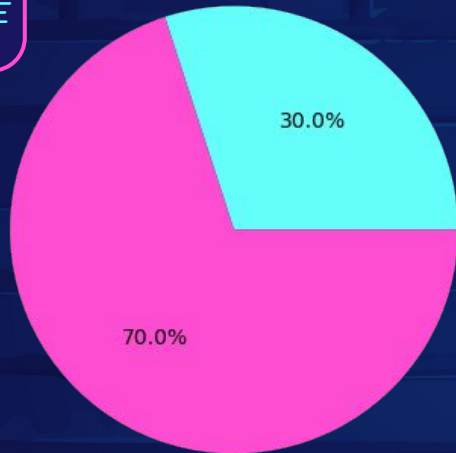
DEPLOYMENT



POSITIVE

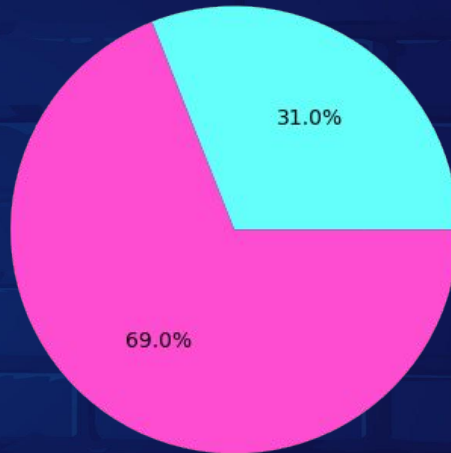


NEGATIVE



Queen Bey

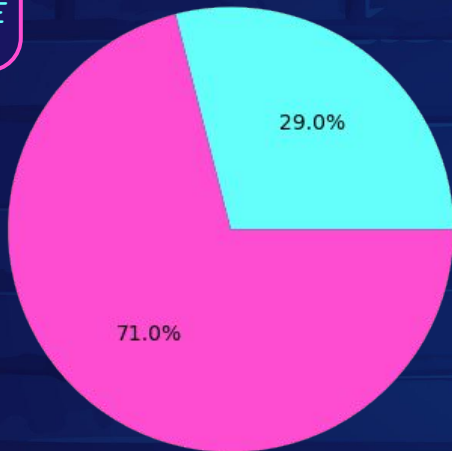
VS



Bad Gal Ri Ri

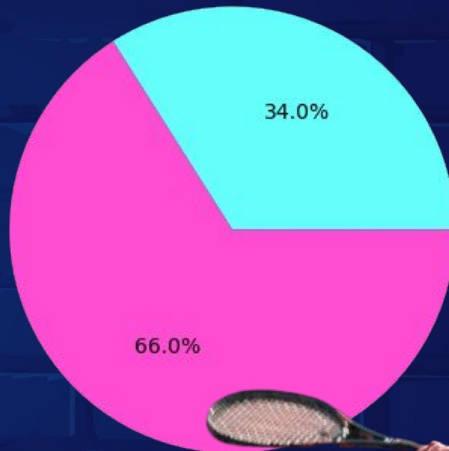


DEPLOYMENT



Joe Byron!

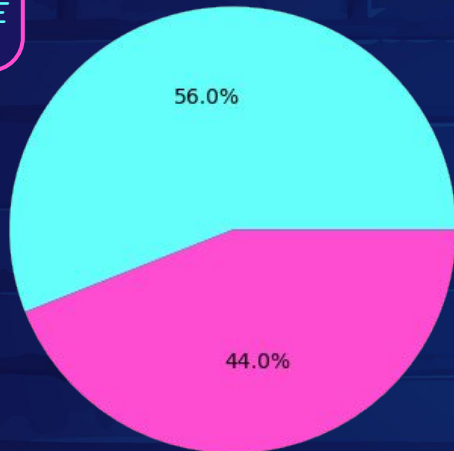
VS



Orange Man!

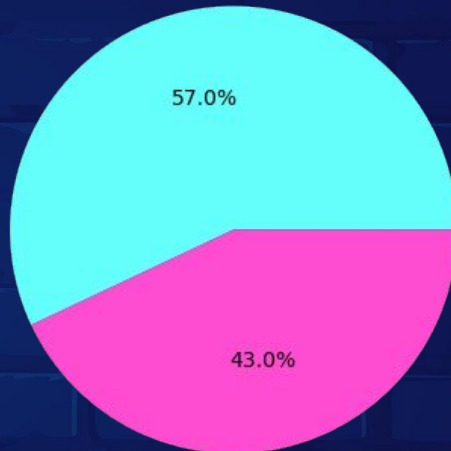


DEPLOYMENT



Papa Zuck

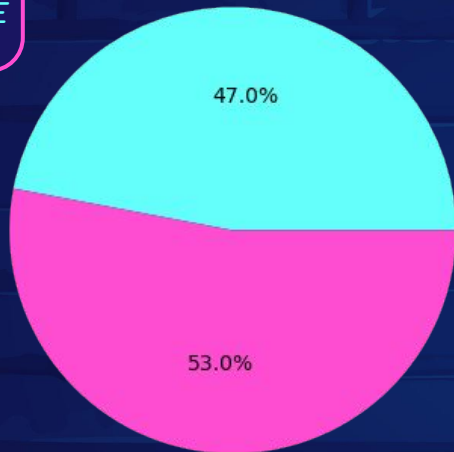
VS



Grimes' Weird Husband



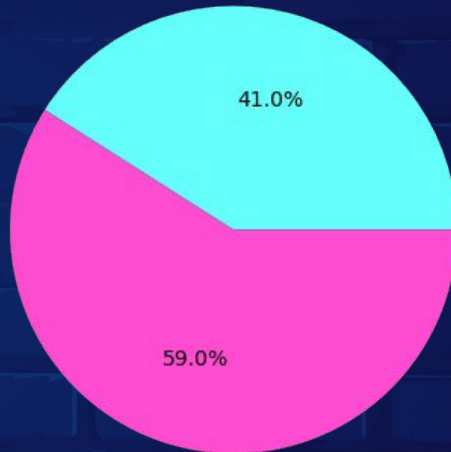
DEPLOYMENT



The Facebook



VS



*"There's No Way I'm
Calling it That"*



DEMO!!!



[www.\[link_will_be_here\].com](http://www.[link_will_be_here].com)

CONCLUSION

LIMITATIONS

- ✗ Shaky ground truth
- ✗ Only using text data
- ✗ Long train times — no grid search
- ✗ Prohibitive API cost

NEXT STEPS

- ✓ Public deployment with streamlit
- ✓ Incorporate emojis
- ✓ Do a week-long grid search
- ⚡ Retrain with better data (\$)
- ⚡ Upgrade to better API (\$)



THANK YOU!



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... any questions?