Module 4 Project

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The fourth industrial revolution is in full effect, and companies, particularly in the music business, need to prepare a new set of strategies if they are to adapt and take full advantage of AI's wave of change.

~ Ashley Rose, Entrepreneur.com, 2019

Methodology

Obtain & Scrub

- Clean, reduce and combine three datasets together
- Create an MVP dataset

Model

- Train/Test split
- Fit the model
- Confusion matrix
- Classification report
- Cross validation
- Neural network

Weeks 1-3 | **Week 4**

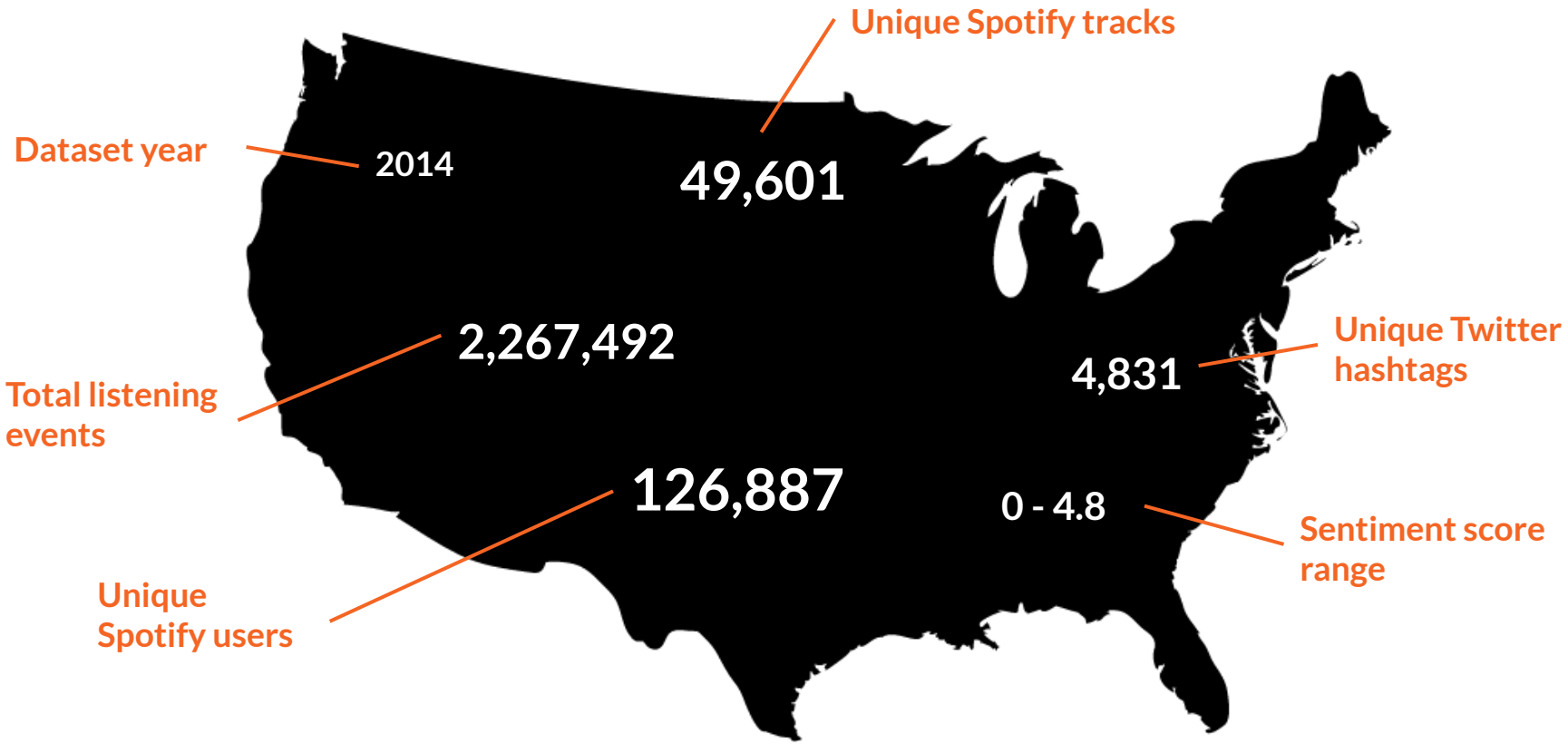
Explore

- Check for multicollinearity
- Logistic regression
- Upsample data

Interpret

Sequential neural networks are great at predicting context-aware music recommender systems

About the Data



Top 10 Hashtags

By Sentiment Score

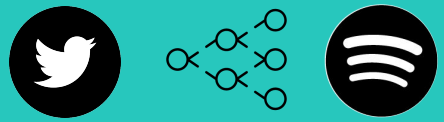
1	thriller	4.8
2	harmonicalove	4.7
3	well	3.9
4	richardmarx	3.6
5	richmond	3.6
6	loversrock	3.4
7	cozypowell	3.4
8	impressionnance	3.3
9	preciousgrace	3.2
10	greatsongforagreatday	3.2

By Count

1	nowplaying	4,870,436
2	kiss92	56,437
3	postpunk	25,299
4	punk	24,730
5	deathrock	24,699
6	urbantraxxradio	23,867
7	tophits	22,836
8	craveradio	9,735
9	rock	9,483
10	stonerrock	42,97

Based on #hashtag and time zone we can use deep learning to predict the next Spotify song you want to listen to!

My model predicts with **99%** accuracy.



Next Step Recommendations

- Use current Spotify and Twitter datasets (from 2018) that includes **likes/dislikes** of songs to determine how additional user context-aware information influences the deep learning, classification model.
- Another use case (using current Spotify & Twitter datasets) would be to build a deep learning, classification model based on recommending **new music** to a user based on their mood, likes/dislikes, and previous listening history.

THANK YOU

References

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- Poddar, A., Zangerle, E., & Yang, Y. (2018). #nowplaying-RS: A New Benchmark Dataset for Building Context-Aware Music Recommender Systems. Retrieved from http://mac.citi.sinica.edu.tw/~yang/pub/poddar18smc.pdf
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- Rose, A. (2019, February 11). Three Ways AI is Reshaping the Music Business. Retrieved from https://www.entrepreneur.com/article/327781