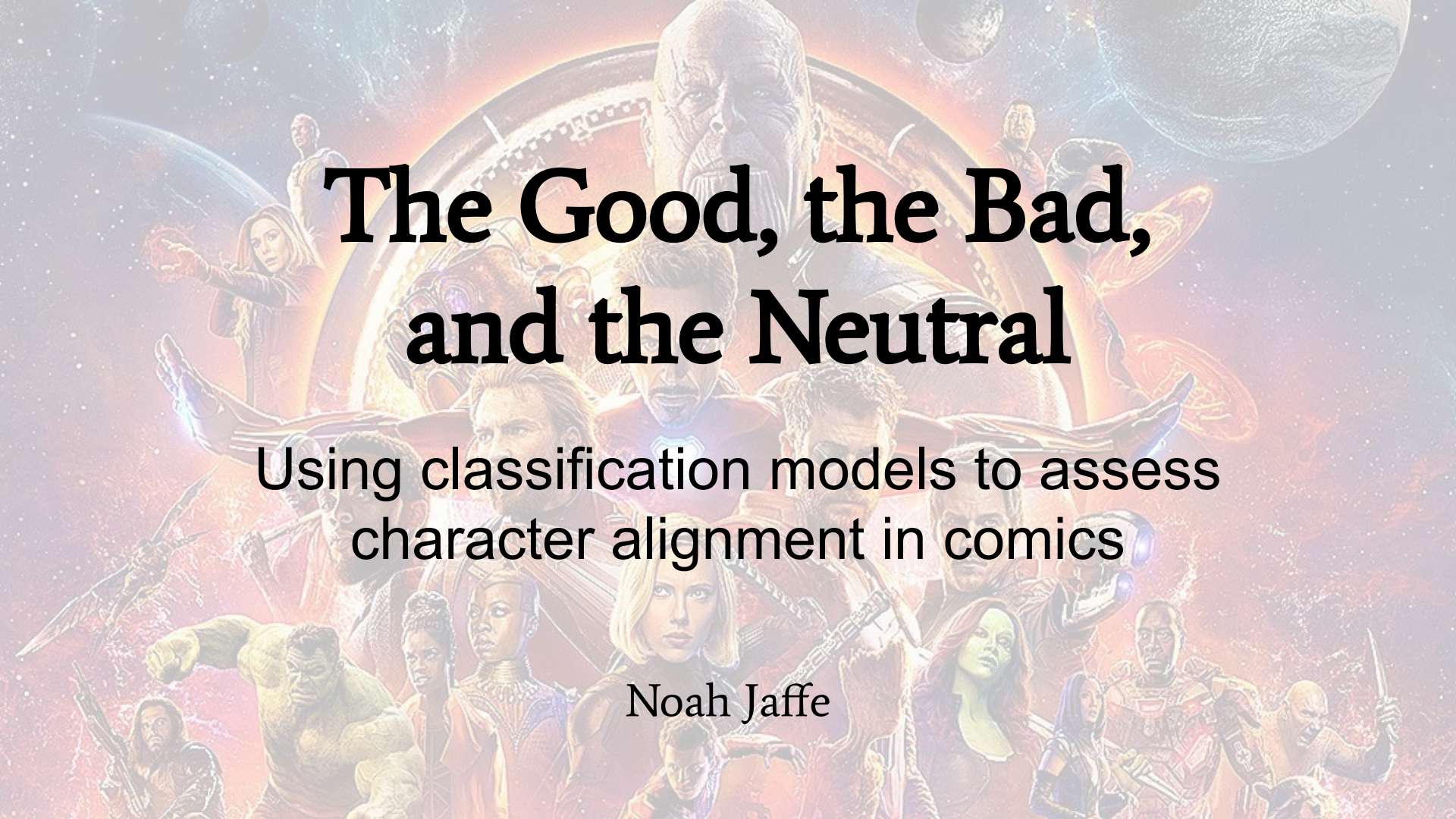


The Good, the Bad, and the Neutral

Using classification models to assess character alignment in comics

Noah Jaffe

Which attributes are associated with good and evil?

- Inferential: looking for trends in the data

Images: https://comicbook.com/marvel/news/avengers-endgame-infinity-war-disney-marvel-one-demand-thanos/, https://ew.com/movies/2019/04/30/avengers-endgame-russo-brothers-captain-america/

Features and Target

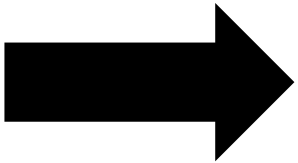
- Secret identity?
- Sex
- Hair and eye color
- GSM?
- Alive?

Good

Neutral

Bad

Data cleaning



Pandas

Numpy

Matplotlib

Seaborn

Images: https://pngimage.net/database-logo-png-4/, https://commons.wikimedia.org/wiki/File:Python-logo-notext.svg, https://en.wikipedia.org/wiki/Kaggle

Models

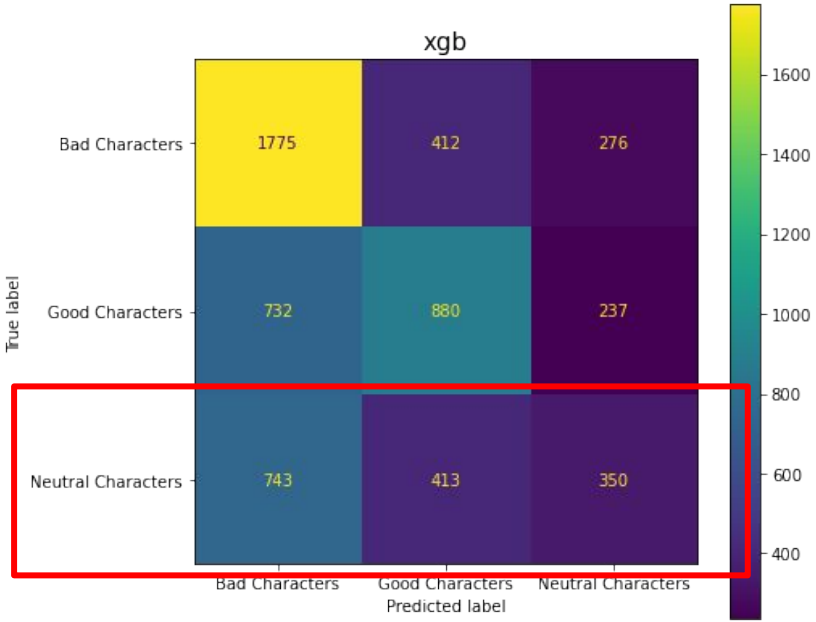
- Logistic regression
- KNN
- SVM
- Naive Bayes
- Decision Tree
- Random Forest
- XGBoost

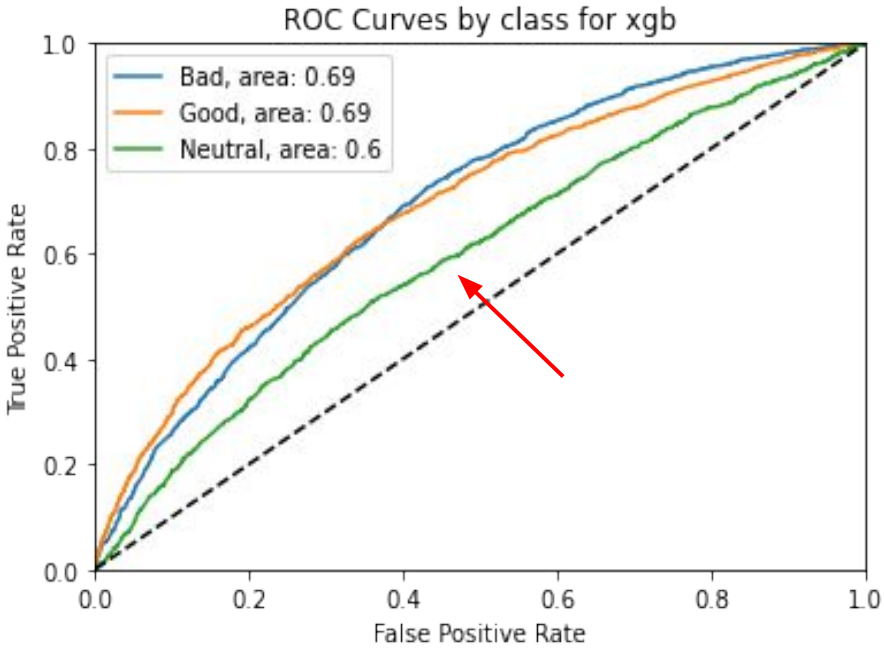
XGB performed best, but...

Image: https://www.youtube.com/watch?v=M0X8ebF_cc0

Neutral category poorly predicted

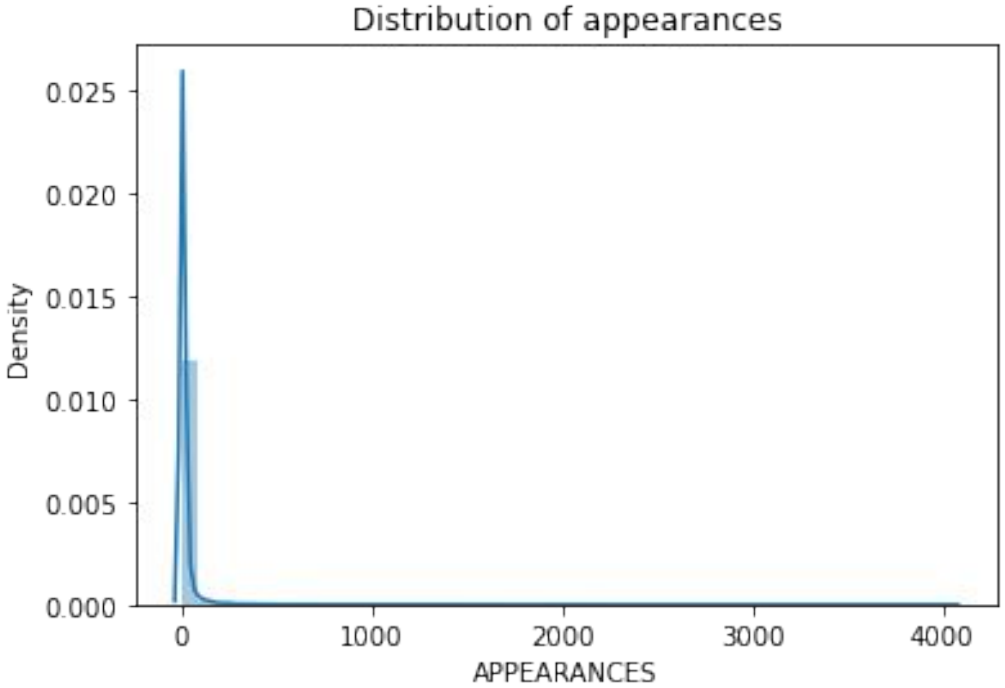
	precision	recall	f1-score	support
0	0.58	0.46	0.51	2419
1	0.60	0.29	0.39	1916
2	0.40	0.08	0.13	1483





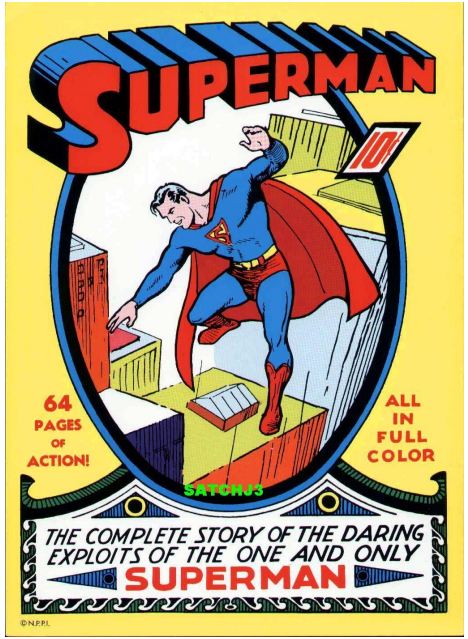
Why is predicting alignment difficult?

- Dearth of well-developed characters
- Neutral characters have less extreme traits
- Lacked *personality* data
  - NLP/sentiment analysis



Takeaways

- Character tropes and trends are fluid
- What **actually** determines characters' morality?
- How have characters changed?



Gritty!

Images: https://www.themarysue.com/celebrate-superman-month-with-a-historical-timeline-part-1-1930s-to-1960s/
https://www.popsugar.com/entertainment/First-Picture-Henry-Cavill-Batman-v-Superman-35141922

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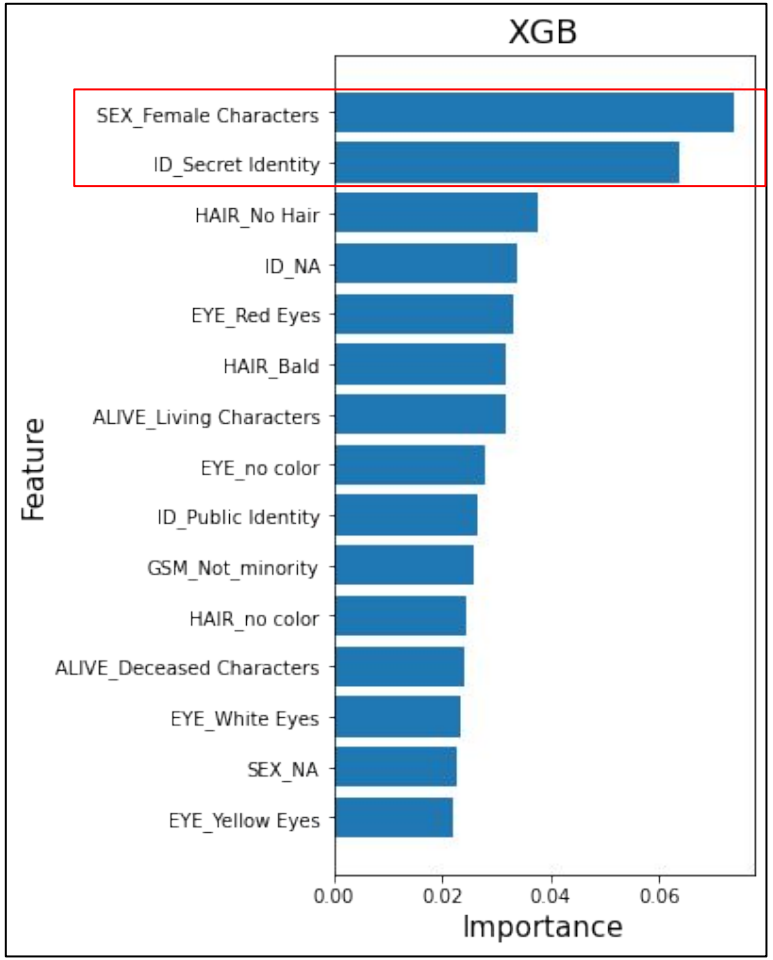
https://screenrant.com/venom-cast-character-guide/, https://batman.fandom.com/wiki/The_Dark_Knight_Rises,
https://www.empireonline.com/tv/reviews/the-boys-season-2/,
https://www.amazon.com/SHAZAM-POSTER-ORIGINAL-Advance-ZACHARY/dp/B07MBP4LMG

Demo!

Image: https://www.insider.com/captain-america-civil-war-concept-art-2016-9

Questions?

Important features

https://metro.co.uk/2019/10/10/brie-larson-confirms-female-mcu-stars-asked-women-marvel-movie-10893821/