NLP Reddit Analysis

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Problem Statement

Based on Reddit discourse, to what extent, and in which ways, are the fields of general engineering and machine learning similar?

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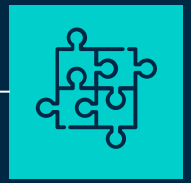
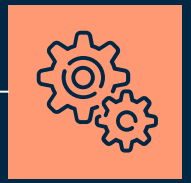


01

Data Processing



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Model &
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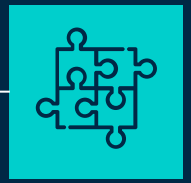
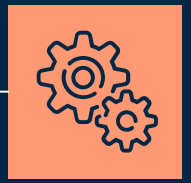
Data Gathering/Cleaning/Engineering



Gathering

Reddit PushShift API

-2600 pulled total
- >15 comments
- >15 Reddit score



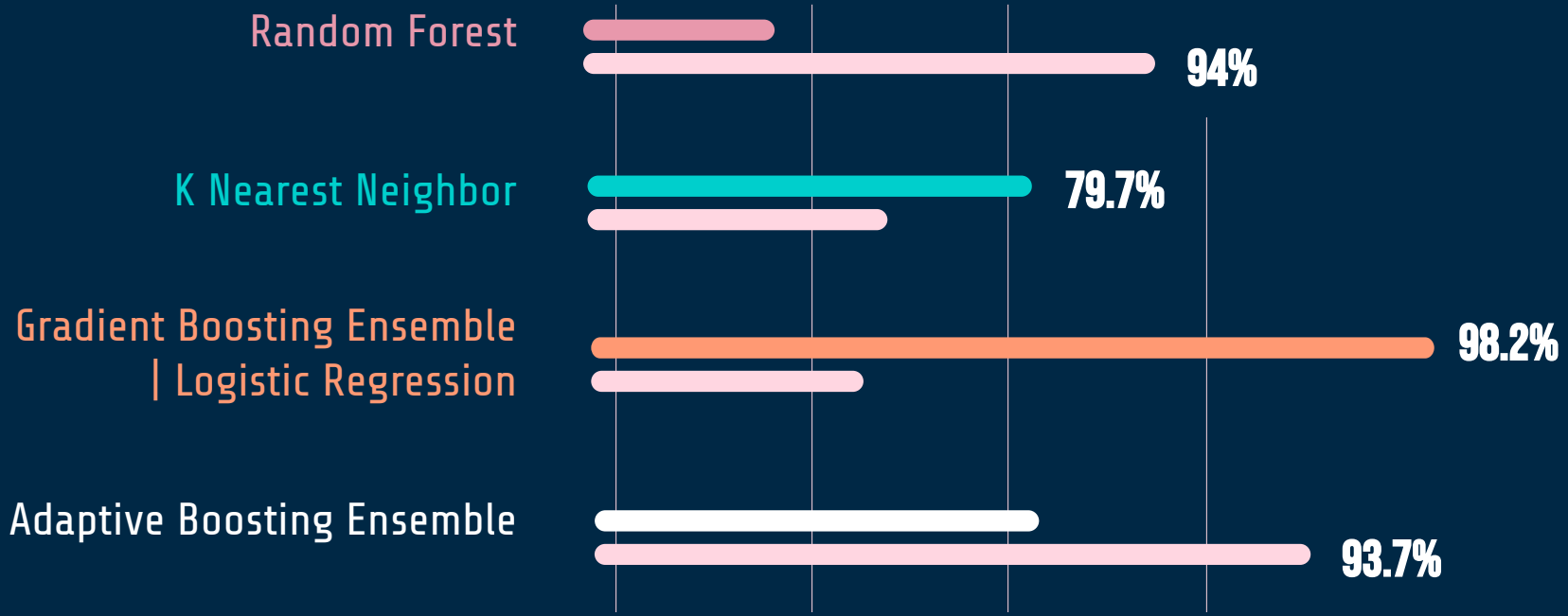
Cleaning

- Binarize subreddit target
- Binarize selftext

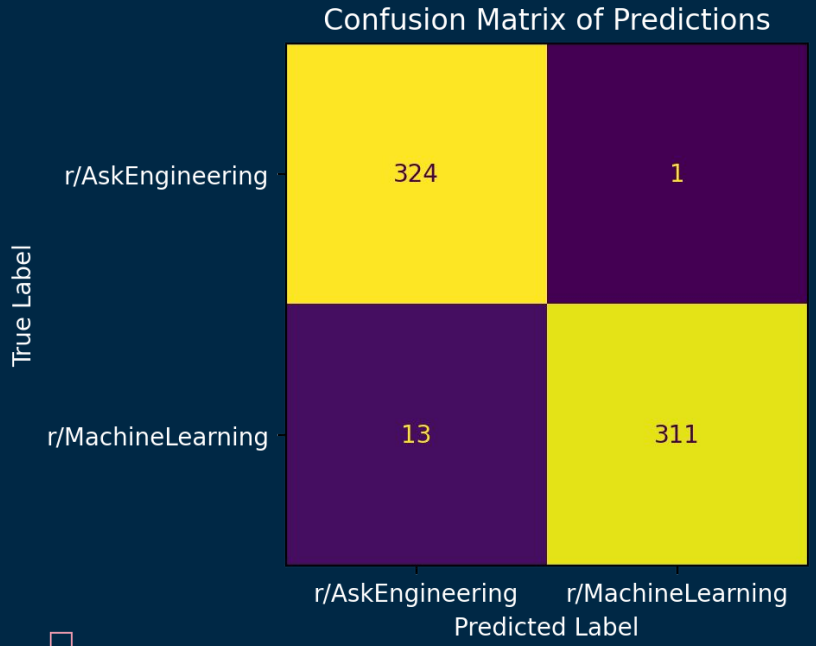
Feature Engineering

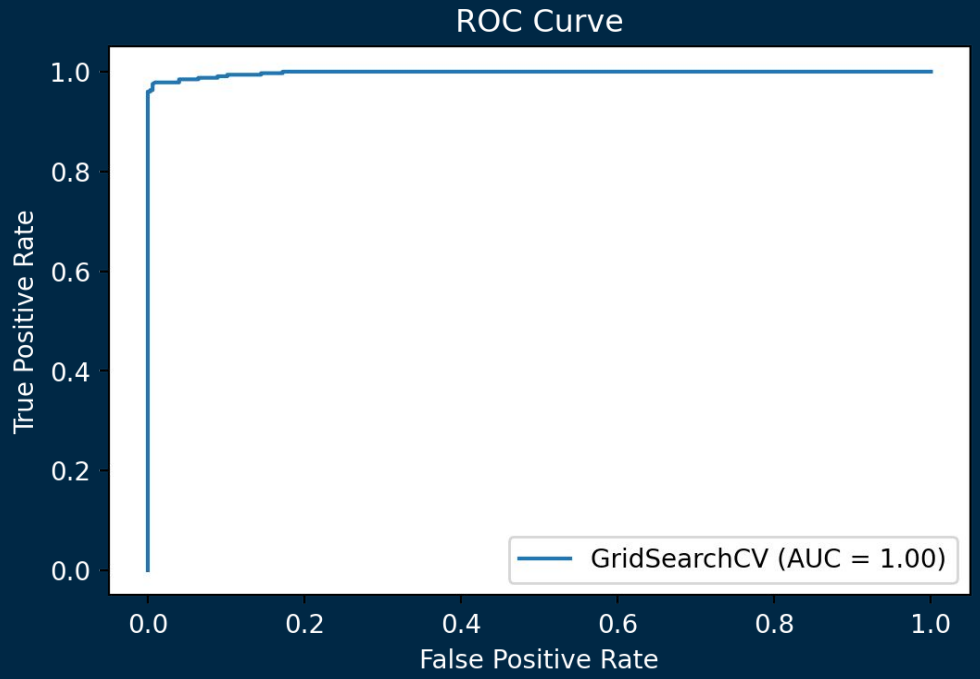
- Total text feature
- Title and selftext length feature
- Title and selftext word count feature

Modeling Pipelines



Visualizations





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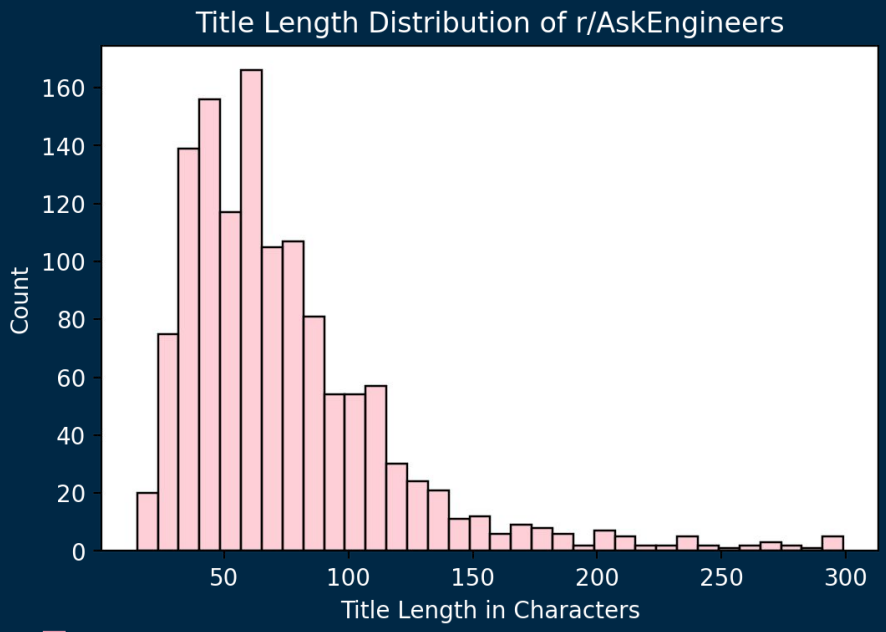

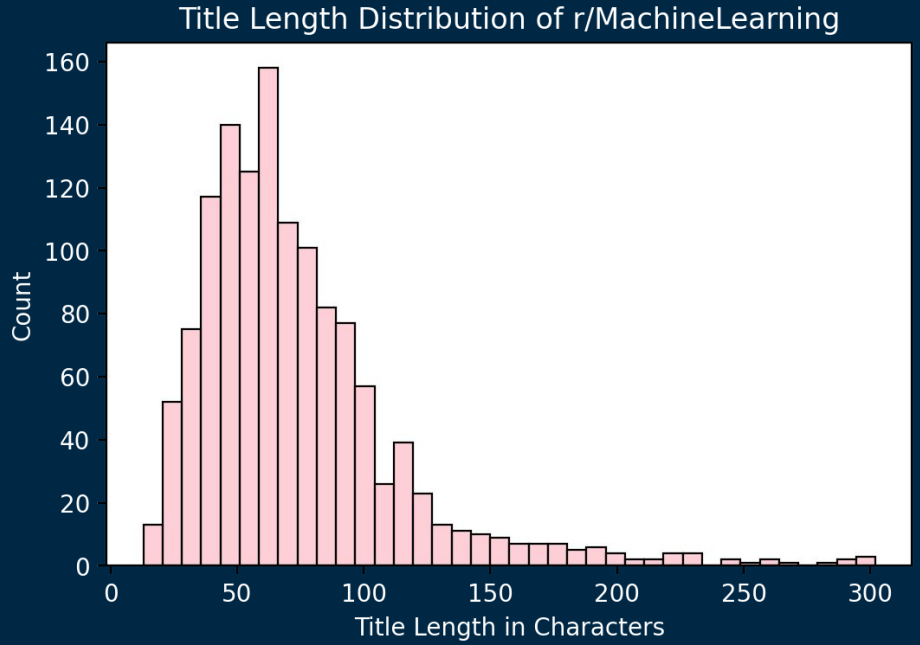

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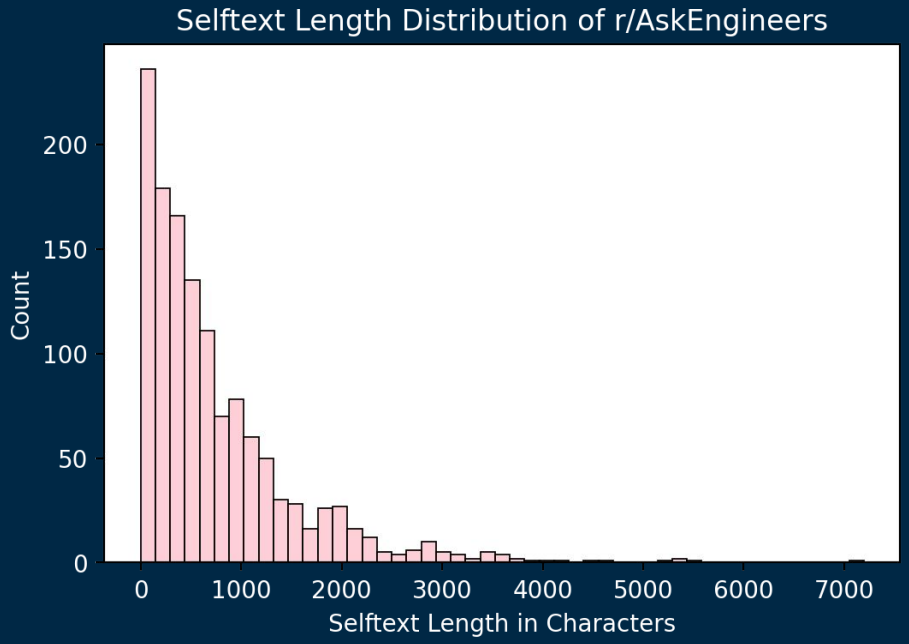

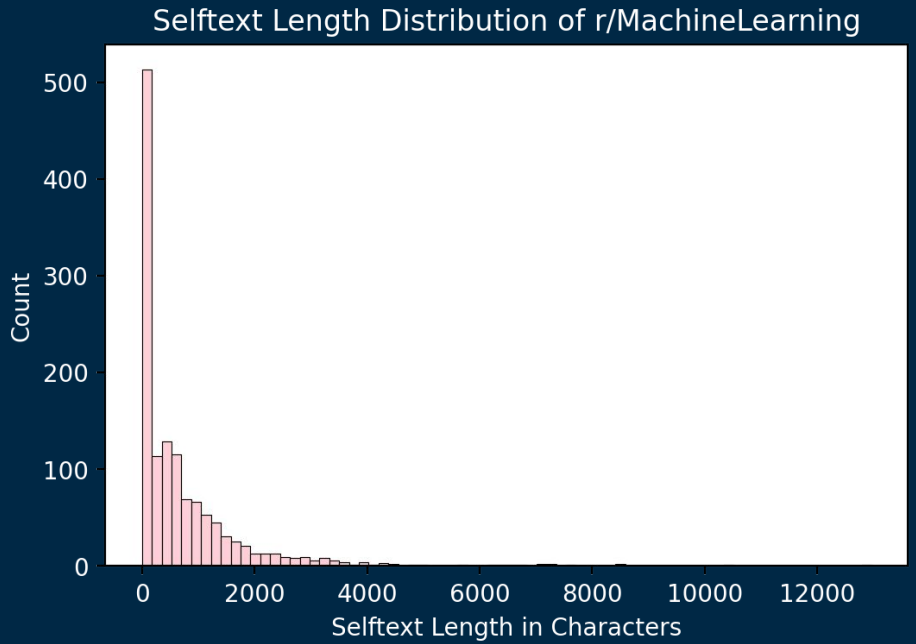

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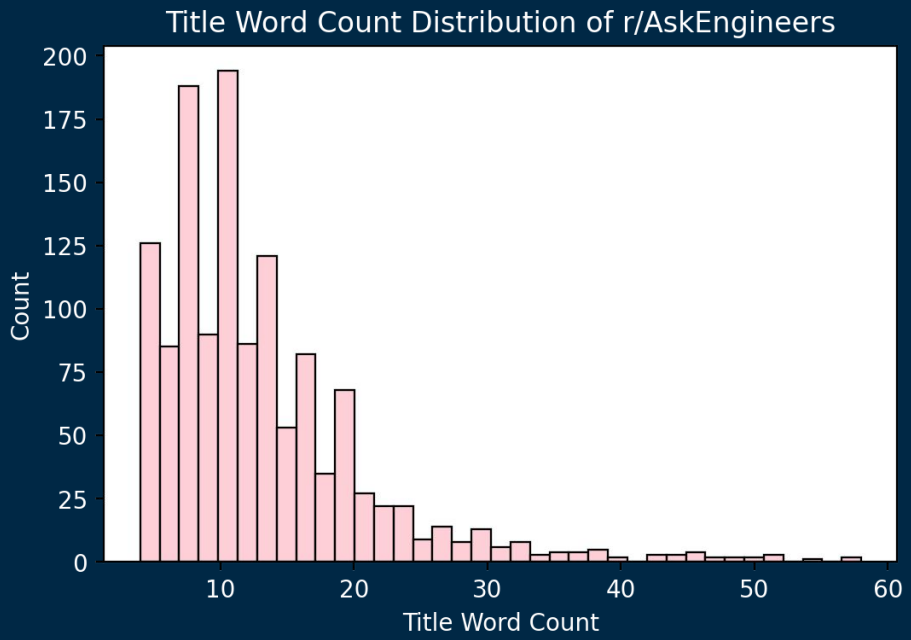

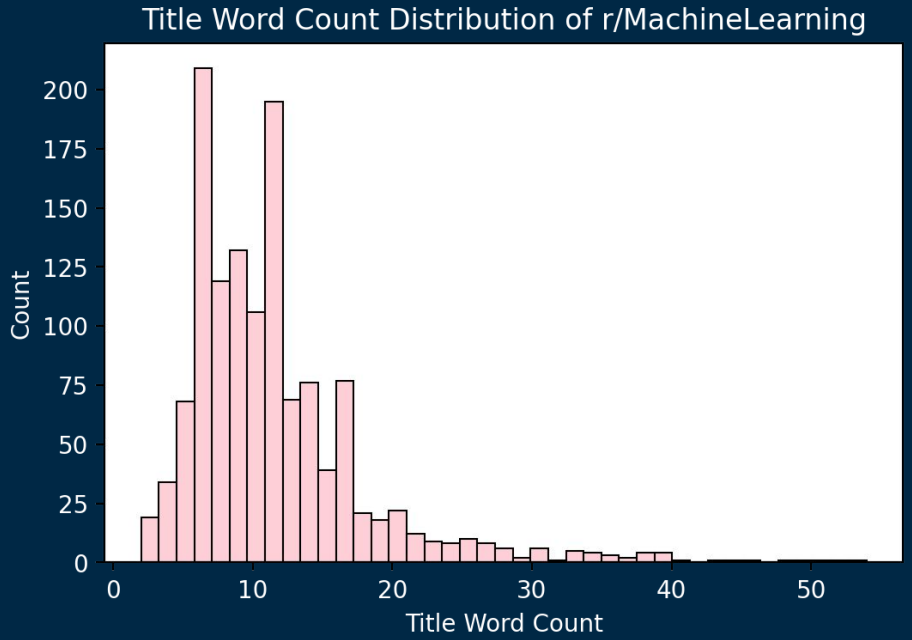

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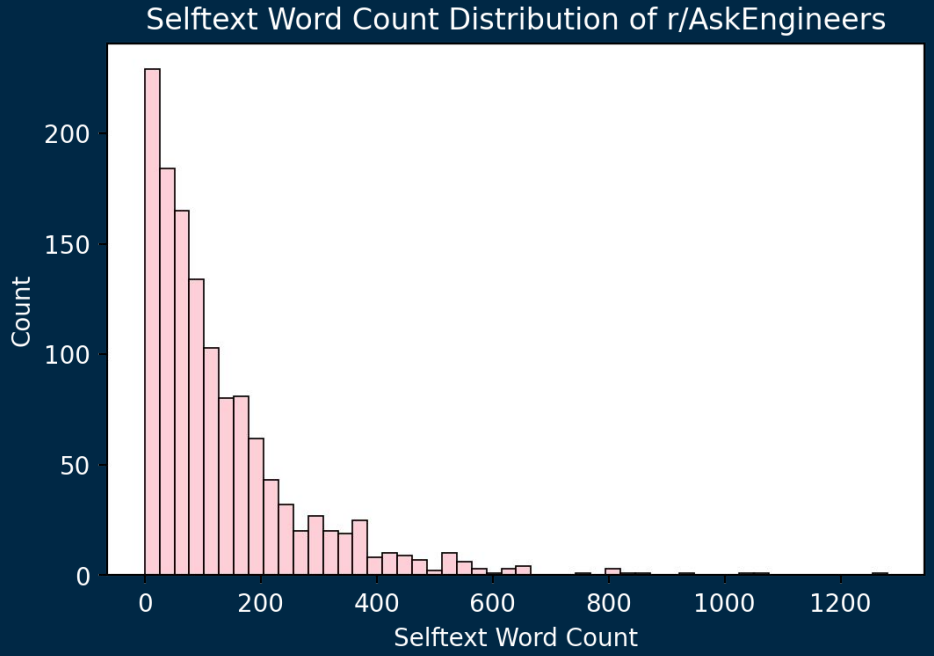
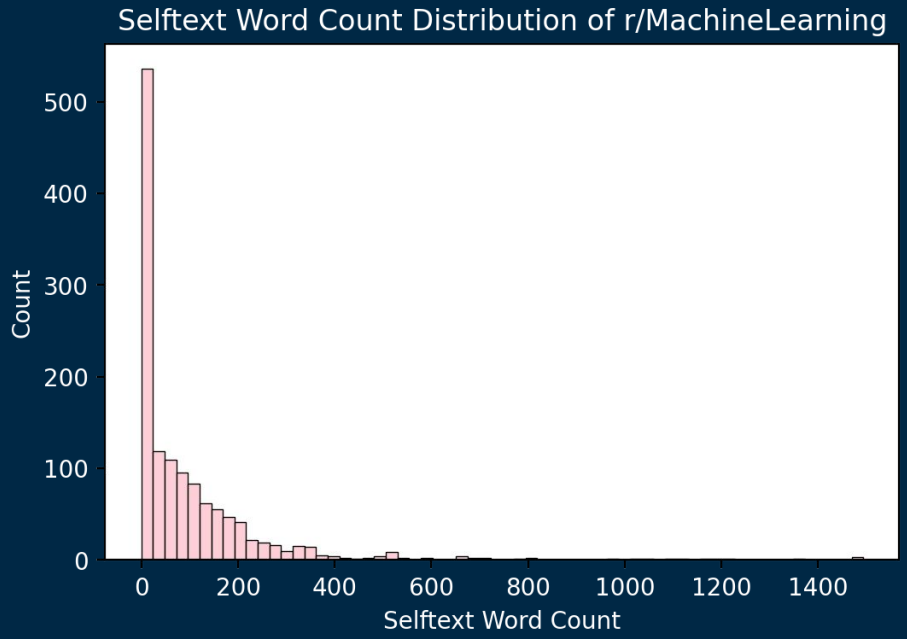
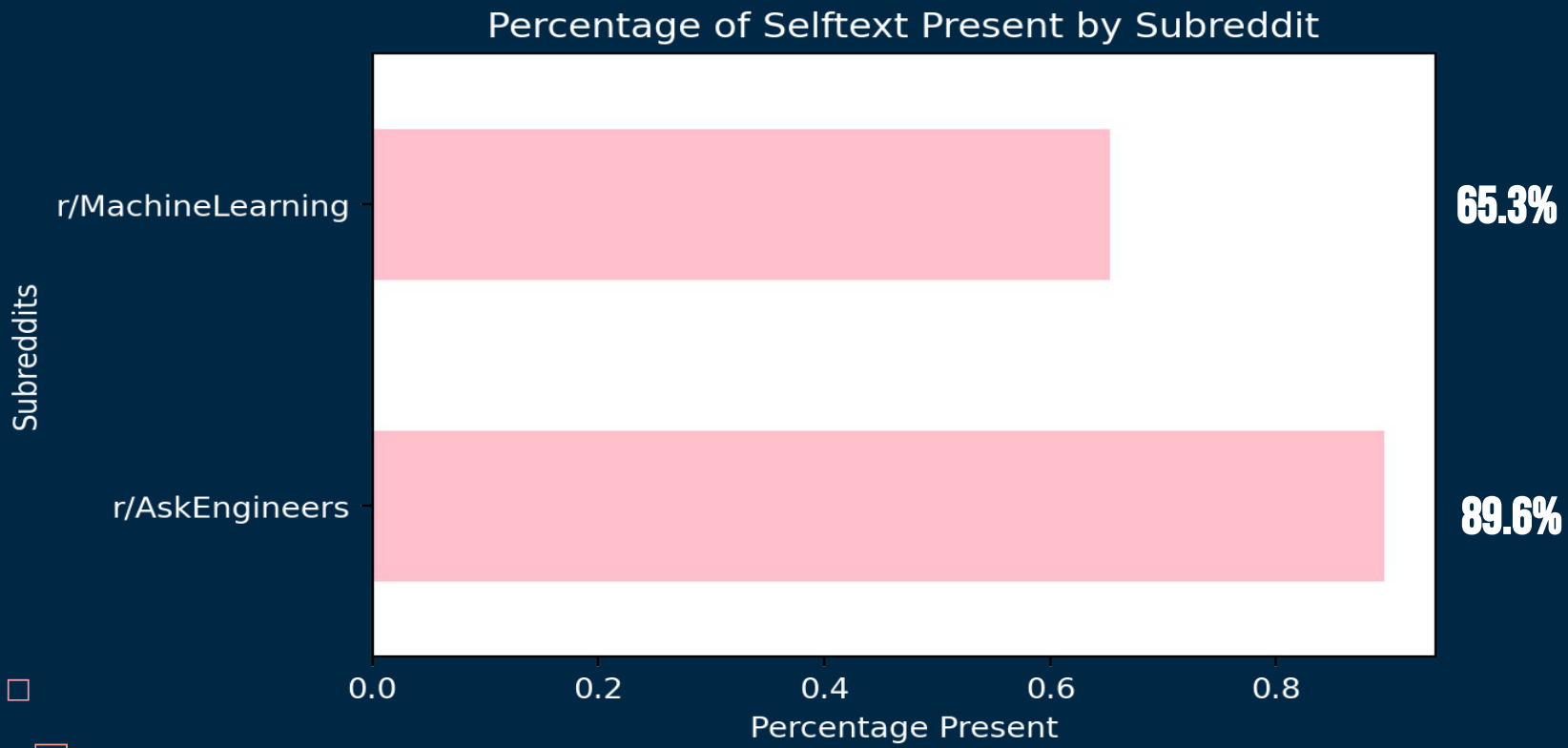
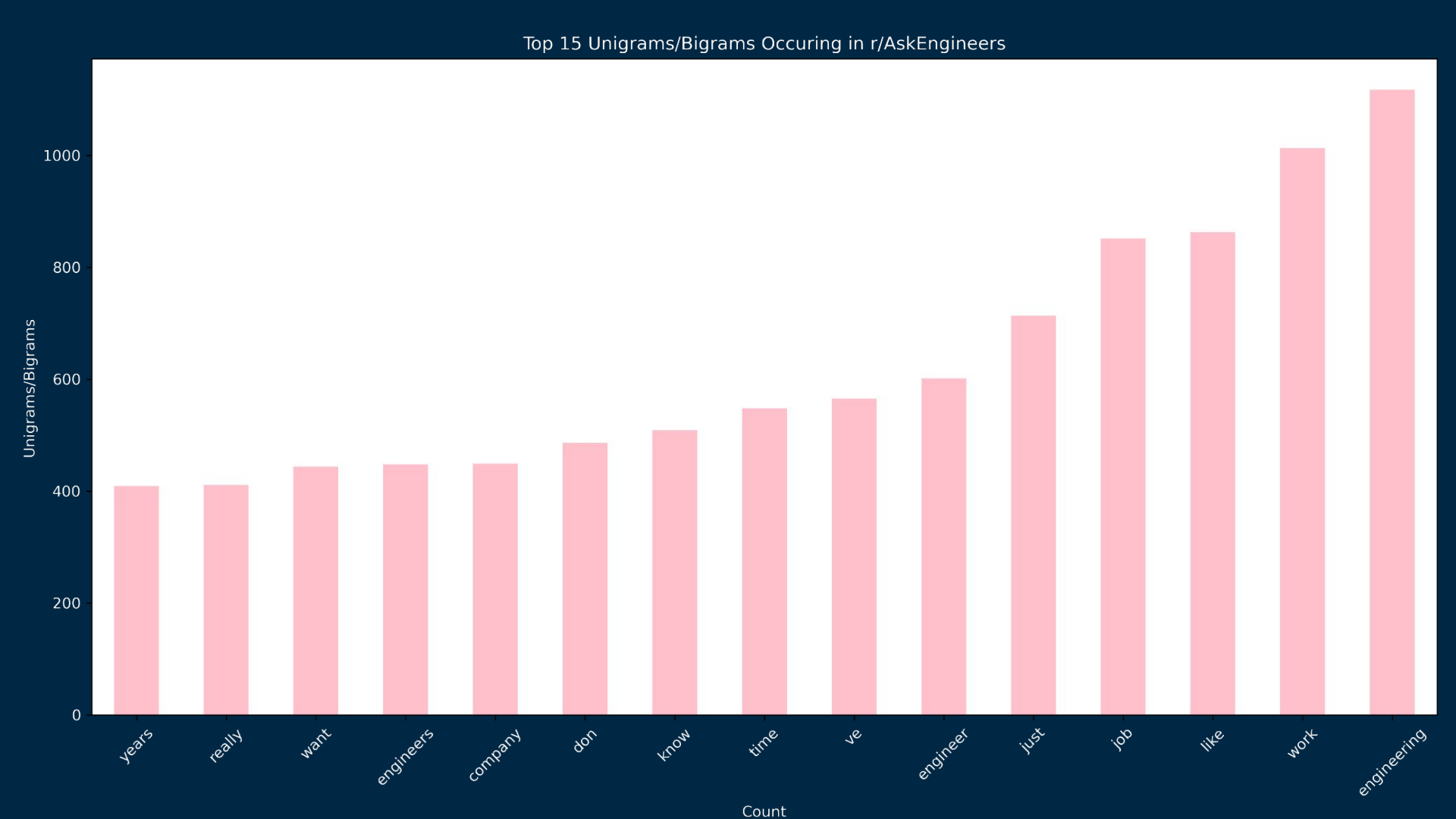
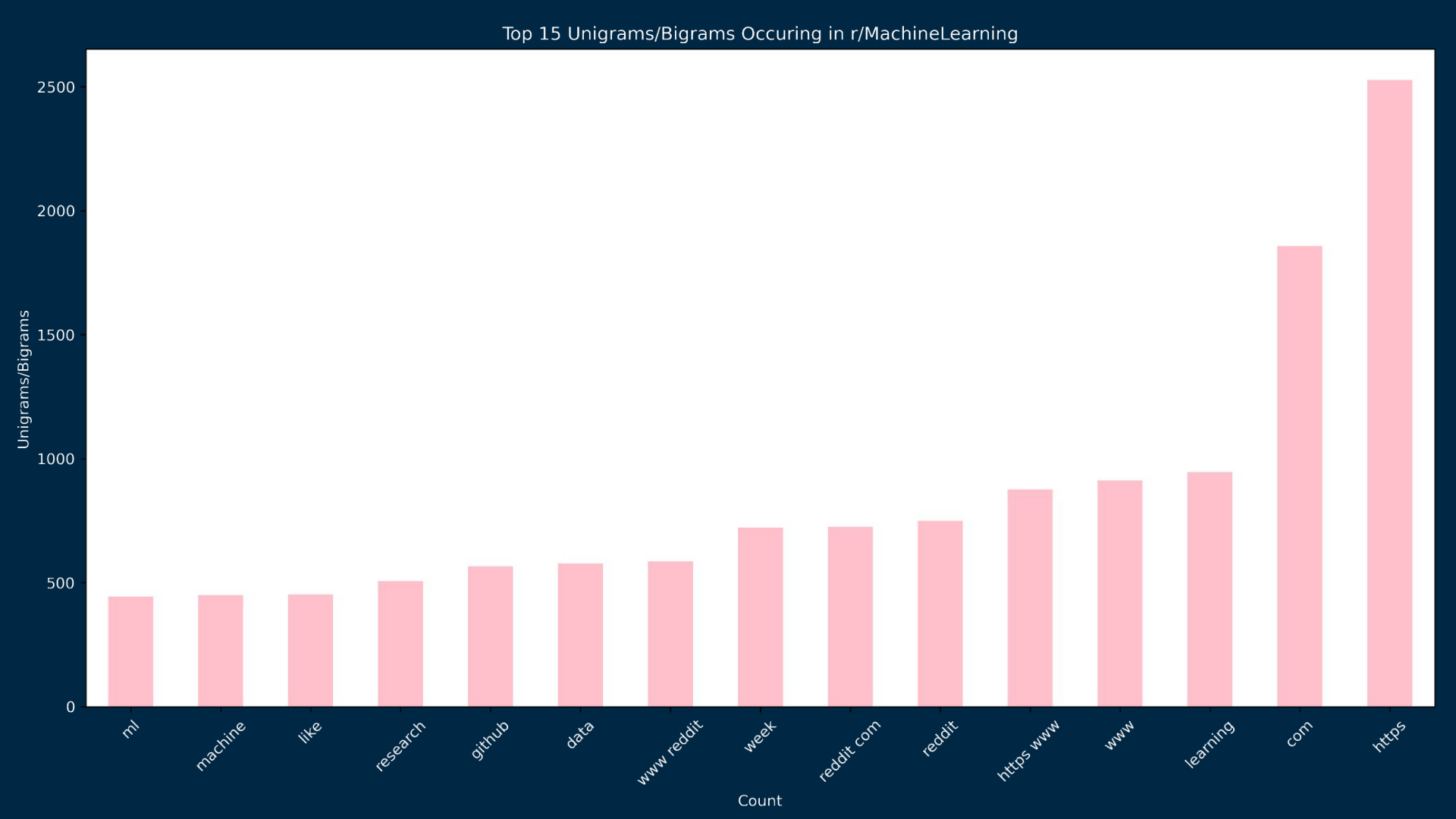




Visualizations




Top 15 Unigrams/Bigrams Occuring in r/AskEngineers
Unigrams/Bigrams
0
200
400
600
800
1000
years
really
want
engineers
company
don
know
time
ve
engineer
just
job
like
work
engineering
Count


Top 15 Unigrams/Bigrams Occuring in r/MachineLearning
Unigrams/Bigrams
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500
1000
1500
2000
2500
ml
machine
like
research
github
data
www reddit
week
reddit com
reddit
https www
www
learning
com
https

Conclusion & Next Steps

- The fields of machine learning and general engineering **do not seem to have much overlap** at this point in time in regards to subreddit discourse.
- **Common words** in top 50: 'com', 'https', 'use', 'new', 'people', 'think', 'know', 'time', 've', 'just', **'like'**, 'work'.
- **Moving forward**, more data would allow us a more comprehensive and accurate model.

Thank You!