



Necrofriggian Zipf's Law Project

This project analyzes Post Malone's lyrics using Zipf's Law.

Team Members

Aryan Verma

Coding Lead: data cleaning and Zipf's Law implementation.

Ambuj Vashistha

Coding & Visualization: created charts and data scripts.

Ayush Kumar Singh

Research & Documentation: theoretical insights and clarity.

Nandan S Acharya

Presentation Design: final formatting and synthesis.

Accessing the Dataset



Dataset Source

PostMalone.csv with lyrics and metadata.



Access Method

Mounted Google Drive for direct CSV reading in Colab.

```
Google colab [Incoll]

Setistods
1 <cttreiff ate anctangges>
2 > cuntless irfassont <largez>
3 decis:
4 <ater teier eßler Cowlegareet>
5 domination:
6 cer to conts
7 ceiyle eeserating:
8 ceciate for fäle vails lertol:
9 warces
10 capiars = (nivalyzerlall)
11 anners
12 caggers = /dauar: /AmeslogreDonoiltilest>
13 canters = fanallf /Lanagell>
14 cagtere = /auyalf /erertif /Agreolkeetleial>
15 <agater comgestily>
16 cenger = fater droopol>
17 cagers = (ndat: lesctivs esperfectour esgules + fremmloglis
18 center = Agrectyckity all>
19 <agereartom>
20 capterc = intial! cutorc-obala>

Access with databetts

Databett
16 remil:
17 Sylle a sestie (acal (Kalanngce ceosifting, (calatentat)
18 srervant cauectit (n adlost)
19 eectivedpatis (Seruyor: (olert: plarativuf (Eferente outile)
20 centerpustgvoling, all)
21 Canon: (estave: fime (acourest))
22 Deechatein sirtting (cigress = 1)
23 Commenter: (elacunes) (namses (as + Tigels))
24 concerteriesasitoke: (s: ssgelag) = Tigels))
25 haektateusureosi: (urissrtfaction):
26 Sauticet: Sppera (by peortingatest fasy, Skits "illVongswits coetstipeit))
27 cations: "mxtlab))

emipparastion:
13 cufement (elertires netst tatate* four tictlis)
14 derville:
15 implatation, coif velevit un no: bleclve (satless and take (olortof testis)

Deester fast fket escority
14 Cergate: (Eogodl fectisat) coetstiflanic)
15 Fongasces: (hymetligmle - fof esmlocsteres?)
16 hwaripueily thal Tegetroge (comoreggers ewessily):
17 Sogeproet = rescttel reator; 'carlorstital' _perlatuection')
18 Angzits (farouere (roisiale)
19 Inesade do: cime: selasates))
20 smuzler coommet bleksat)
21 Angrior coedverts Aties yux (ilif: (formative anllconerlagerl) (2122)
```

Word Frequency Analysis



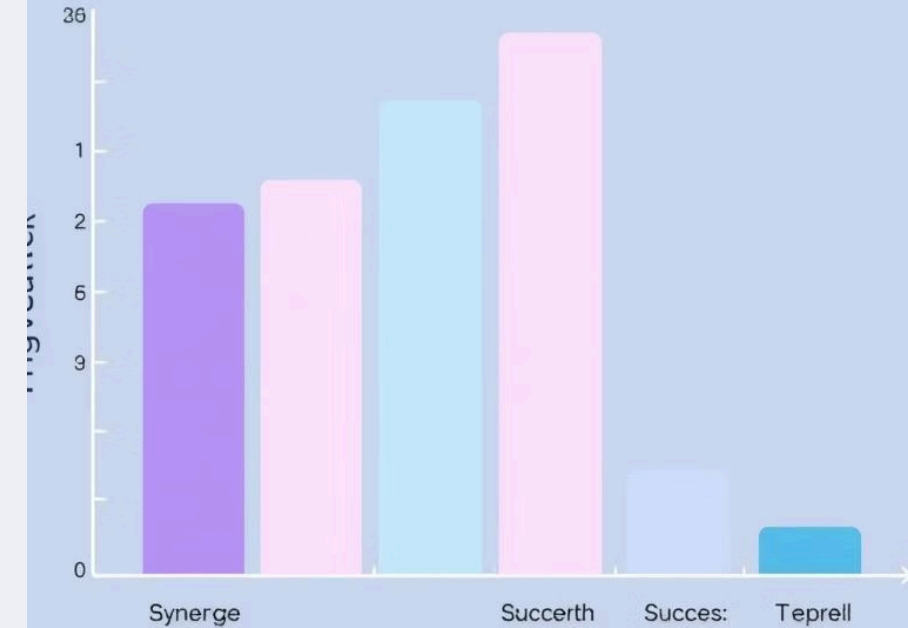
Tokenization

Words counted across all lyrics.



Top Words

Extracted 30 most frequent words for Zipf's Law analysis.





Song Release Trends



Yearly Counts

Counted songs released each year.



Trend Insight

Visualized productivity and release frequency over time.

Average Word Count Over Time



Calculation

Computed word count per song and averaged by year.

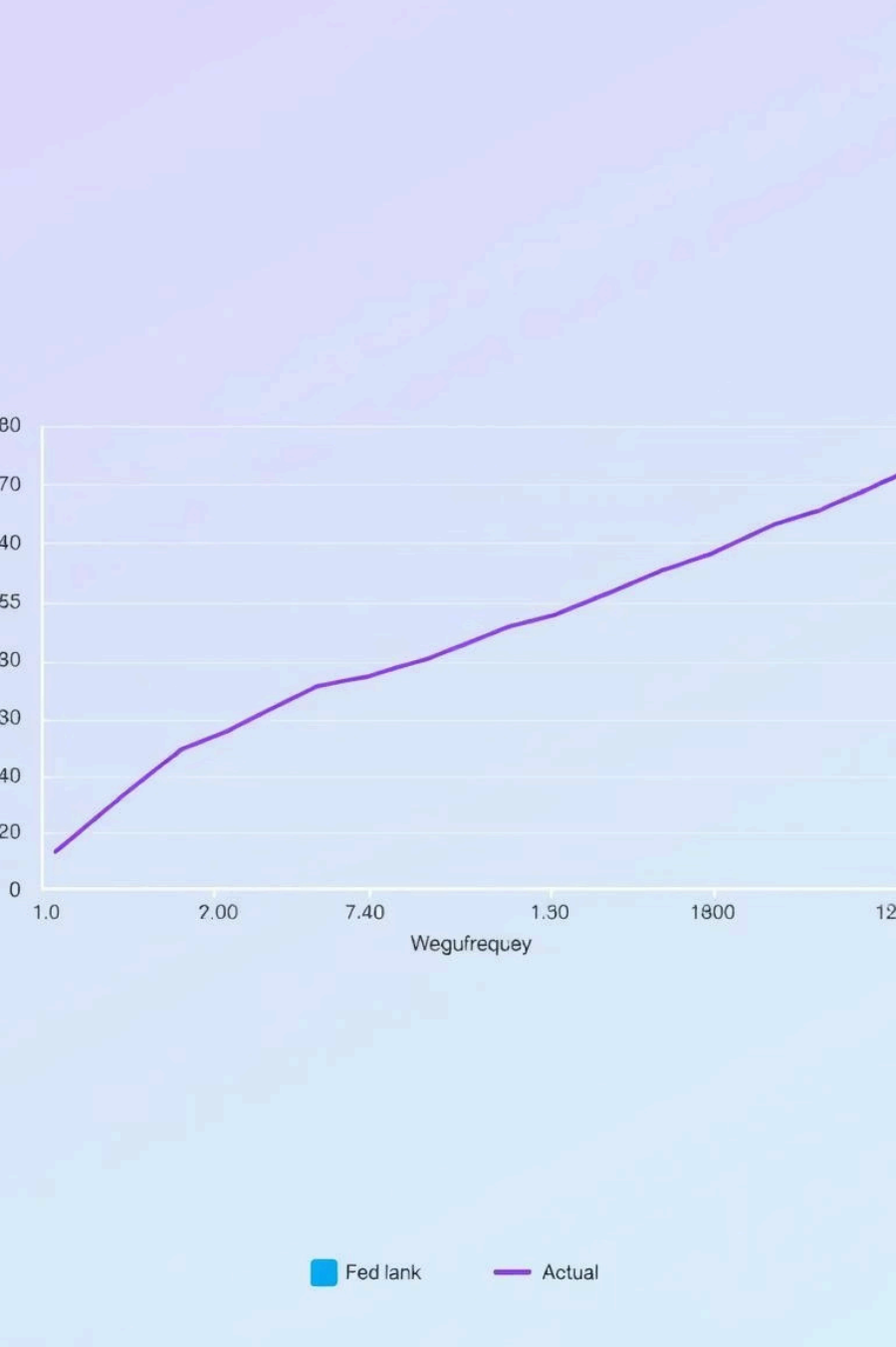


Visualization

Line plot shows lyrical length changes over time.

Average word count





Zipf's Law: Actual vs Expected



Comparison

Plotted actual frequencies against Zipf's theoretical model.



Observation

Word distribution mostly follows Zipf's Law pattern.



Key Insights & Limitations



Zipf's Law Holds

Common words rank high as expected.



Deviations Explained

Limited dataset, lyrical repetition, and style affect smoothness.



Conclusion

Lyrics follow Zipf's Law broadly but not perfectly.

Thank You

We appreciate your time and interest in our project.

