1. Facebook ads dataset results

The script computes:

* Overall descriptive stats for the column estimated\_spend
  + Count, Mean, Min, Max, Standard Deviation
* Top 10 most frequent entries in the bylines (campaign source) column
* Grouped statistics by page\_id (aggregating spend data per page)

Interesting Insights

* The dataset contains 246,745 valid ad spend records.
* The average ad spend per entry was around $1,061, but varied widely (up to $474,999).
* Top campaign sources by ad count include:
  + HARRIS FOR PRESIDENT – 49,788 entries
  + HARRIS VICTORY FUND – 32,612 entries
  + DONALD J. TRUMP FOR PRESIDENT 2024, INC. – 15,112 entries
* Some page\_id groups had very consistent spend patterns, including pages with standard $49 spends and zero standard deviation.

Performance

Runtime for full analysis: ~11.26 seconds

Environment: Pure Python with no optimization or multithreading

1. Facebook ads results

Total records analyzed: 14,398

Mean interactions: ~2,210 per post/page

Max interactions: 470,087 – showing highly viral posts

Standard deviation: ~13,066 – wide distribution and variance

Quartiles:

25%: 47 interactions

50% (median): 133 interactions

75%: 452 interactions

Top Page Category values:

PERSON: 9,453 entries

ACTOR: 3,304 entries

POLITICIAN: 2,595 entries

POLITICAL\_CANDIDATE: 1,161 entries

Less common: ENTREPRENEUR, YOUTH\_ORGANIZATION

Grouped by Facebook\_Id, key insights:

Certain pages like a3fa0d15dd83... received up to 196,265 total interactions.

Some users/pages have extremely high engagement across many posts.