Analysis of Trending Youtube Videos

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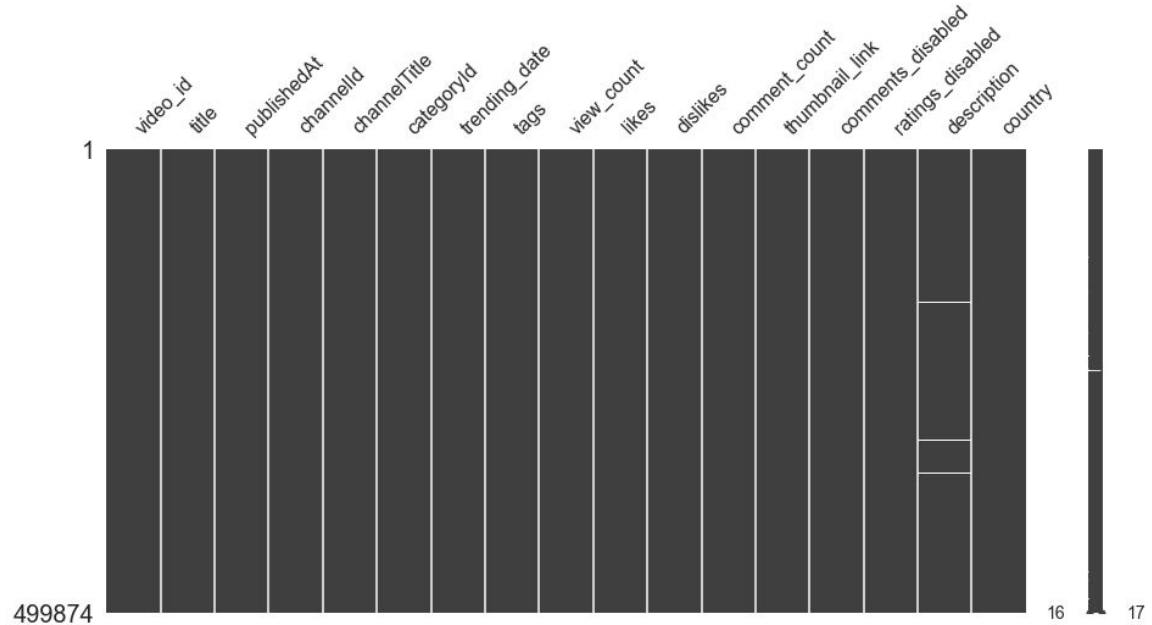Michael Taylor
Daniel Shackelford

Questions

1. Do various tags have an effect on viewership?
2. Do popular trending videos in a particular category lead to an overall increase in viewership in the same category?
3. What features cause an increase in viewership count for a trending video?
4. What are common visual features in trending video thumbnails?

Dataset preparation work

- Concatenation of all data sets

- Possibility for cleaning

- Stringify publish date and sort
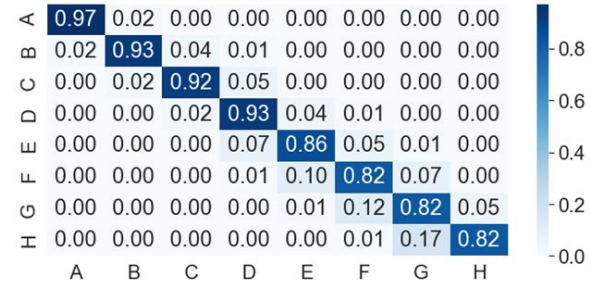
- Feature engineering
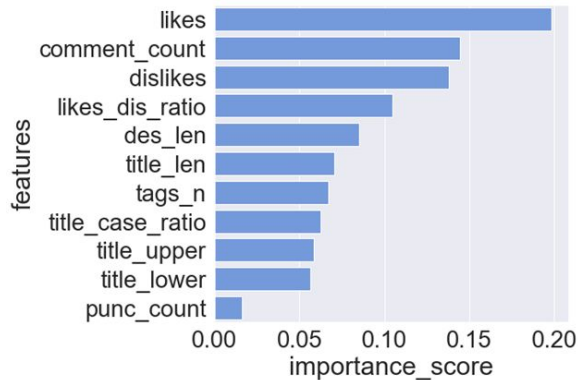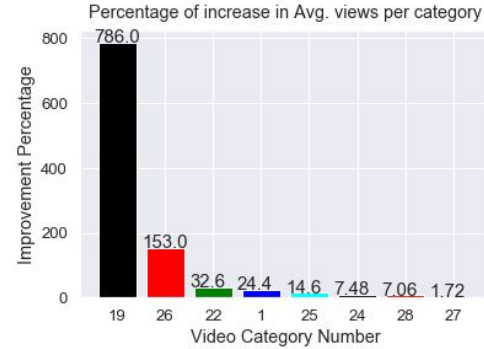
- Downloading images

Tools Used

Techniques Used

- Correlation analysis
- Z-score classification of outliers for analysis in trending videos
- Feature Classification with Random Forest Model
- Image feature detection with openCV Haar Cascade classifiers and VGG16
- Visual clustering with KMeans, PCA, and t-SNE

Results and Knowledge Gained

Applications of Knowledge Gained

01   **Improving performance of a Youtube Video**

02   **Improving YouTube's user engagement**

03   **Analyzing trends and population behavior**