

Forecasting Fame: Predicting Growth in Trending YouTube Videos

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Dataset Overview

Dataset:

- Trending YouTube Video Metadata (US/GB/CA)
- Time Span: November 2017 - June 2018
- Daily snapshots of trending videos

Attributes:

- `video_id`, `title`, `channel_title`
- `views`, `likes`, `comment_count`
- `publish_time`, `trending_date`

Feature Engineering:

- `Ratio_Views`: Growth after trending
- `time_to_trend`: How fast a video reached the trending list

Project Objectives & Methodology

Project Objectives:

- ➊ **What drives post-trending view growth?** Correlate `Ratio_Views` with metadata such as title length and category.
- ➋ **Does trending speed affect future success?** Analyze the relationship between `time_to_trend` and long-term view growth.
- ➌ **Are trending thresholds evolving over time?** Perform time series analysis on average trending views per date.

Methodology:

- Merge daily records to capture view growth and trending delays; handle missing values; encode categorical features.
- Conduct Exploratory Data Analysis (EDA); correlate engineered features with engagement metrics.
- Model trends using regression and time-series techniques.

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