HIGHLIGHT DETECTION IN SPOKEN WORD CONTENT

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Snackable AI - “Unlock your content's potential in seconds”

What they do:
- Generate transcripts
- Search in audiovisual content
- Generate audio highlights and more...

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What is the project about?

The goal of the project is to extract short interesting highlights from the audio content, thus compressing hours-long content into minutes.

Why is it important?

- Plenty of audio content (podcasts, webinars, and online courses)
- Audio formats are difficult to consume (lengthy, not browsable, not searchable)
Idea

Prepare text

Score sentences

Generate all the possible highlight combinations

Calculate weighted highlight score

Get top 10 highlights
Methods

- TF-IDF - term frequency-inverse document frequency
- Textrank - a graph-based ranking model
Main results

1. Human annotators
   Approx. 45% accuracy

2. TF-IDF
   Approx. 22% accuracy

3. Textrank
   Approx. 7% accuracy

Accuracy is calculated using Normalized Discounted Cumulative Gain (NDCG)
Main results

TF-IDF model accuracy on the test set
Lessons learned

• Start with the simplest model

• Take NLP course
Thank you!