

on AUTOMATED MEETING ANALYZER

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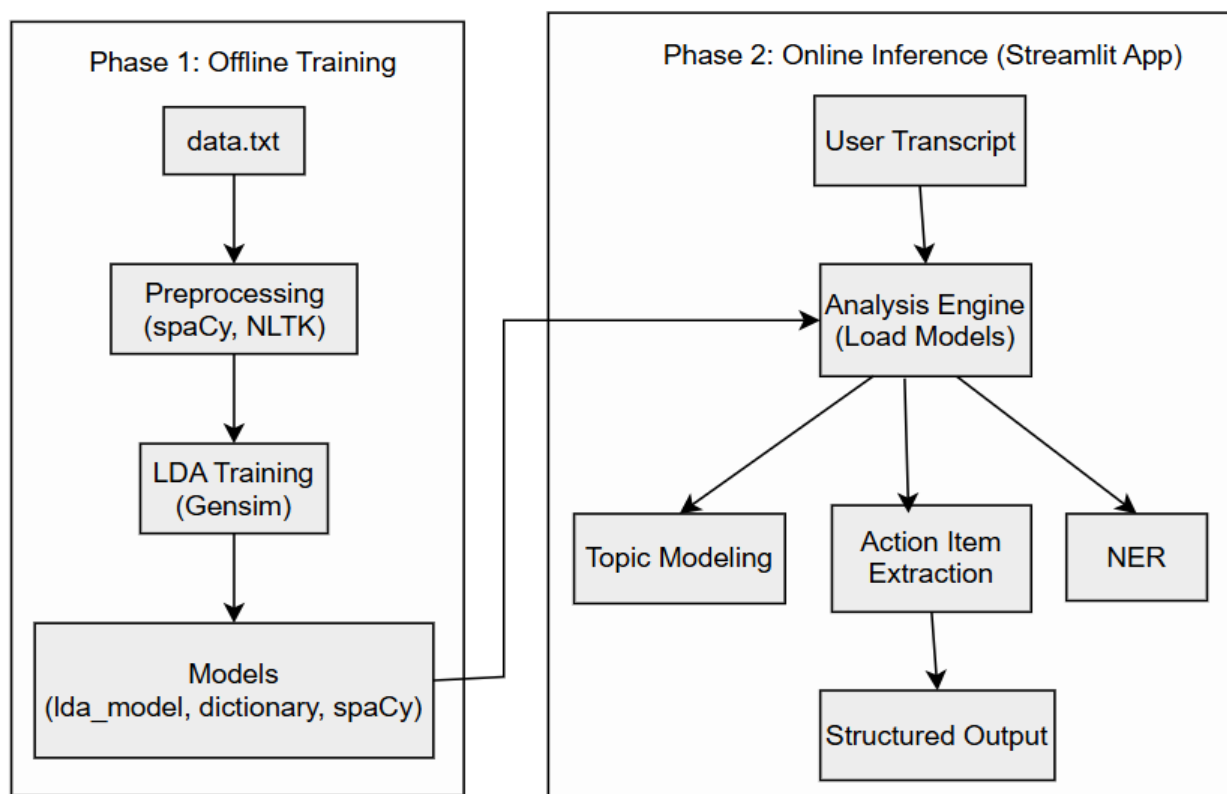
Abstract

Many organizations face information loss and missed tasks from lengthy meetings. This project introduces an NLP-based system that analyzes transcripts using LDA to identify key discussion themes and a rule-based approach with spaCy NER to extract actionable tasks, assignees, and deadlines. The system generates a structured summary, improving productivity by ensuring critical information and responsibilities are retained.

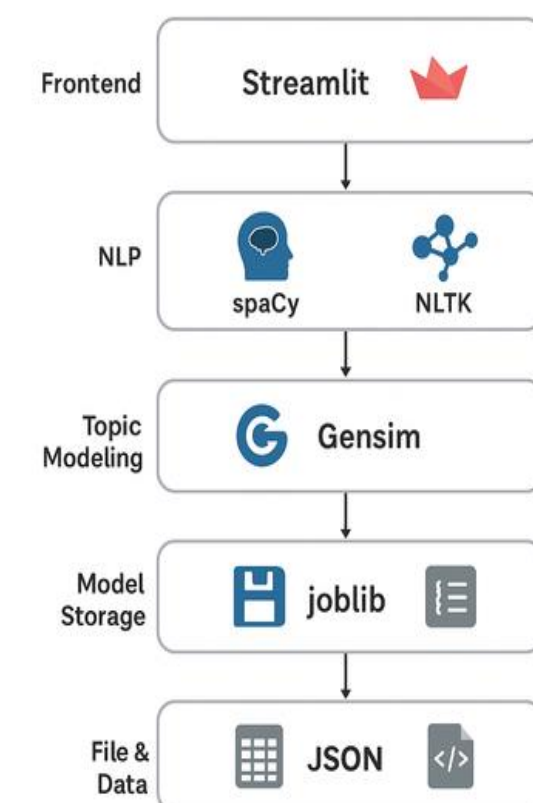
Introduction

Meetings are crucial for collaboration, but manually processing outcomes is time-consuming and error-prone, often leading to missed tasks and reduced productivity. This project presents an intelligent tool that automates transcript analysis, using advanced NLP to generate clear summaries of discussion topics and precise action items, bridging the gap between conversation and action. The system ensures important decisions and responsibilities are never overlooked and helps teams stay organized and efficient.

System Architecture



Tech Stack



Result

- Meetings Analyzed: 11
- Dialogue Turns: 650
- Vocabulary Size: 1,727 words
- Topics Generated: 5
- Action Items Identified: 75
- Named Entities Extracted: 112
- Processing Time: 8.24 seconds

Action Items

- We need to ensure the quality of the interaction.
- I will draft a proposal for a new set of engagement guidelines by next Friday.
- Let's make that an official action item.
- Donald, can you and your team review our current software tools and see if we need an upgrade? Donald Peters: We will get on that and report back in the next meeting on October 15th.

Meeting Transcript Analyzer

This tool uses Topic Modeling and NLP to extract key insights from meeting transcripts.

Paste your full meeting transcript here:

Meeting Chairman (Mark): Good morning. The main agenda today is our Q3 marketing strategy. Alice, can you start us off?
Alice Linnes: Of course. I think our biggest gap is social media engagement. Customers today expect faster, more personal interactions on platforms like Twitter and LinkedIn.
Donald Peters: I agree. Our current response time is over 24 hours. We should aim for under 4 hours.
Jennifer Miles: That's a valid point, but speed isn't everything. We need to ensure the quality of the

Analyze Transcript

Conclusion

The project successfully automates meeting transcript analysis using LDA and spaCy NER, generating concise summaries and extracting action items. It improves efficiency, reduces manual effort, and ensures no critical information or responsibility is lost.

Applications

- Corporate meetings for MoM generation
- Project management for task tracking
- Education/research discussions
- Customer support & sales calls
- Healthcare and clinical documentation

References

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- NLTK: Natural Language Toolkit. <https://www.nltk.org/>
- PyLDAvis: Interactive Topic Model Visualization. <https://pyldavis.readthedocs.io/>
- Joblib: <https://joblib.readthedocs.io/>