YOUTUBE VIDEO SUMMARIZER

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Problem Statement

1. Growing need for efficient summarization tools
2. Comparing Vertex AI to Python library models.

Objective

1. Prototype Development
2. Summarization using Audio
3. Summarization using Subtitles
4. Summarization using Motion Detection

Approach

- Data Collection
- Research Papers Review
- Exploring Python Libraries
- Implementing Models on Google Colab
- Analyzing the Outputs

Tech Stack

- Programming Languages: Python
- Google Cloud Platform: Vertex AI
- Collaborative Environment: Google Colab
- Natural Language Processing Libraries: BERT, spaCy
- Machine Learning Libraries: Transformers
- APIs and Libraries: Pytube, youtube-transcript-api, gradio

Challenges

- Obtaining API keys and access permissions for some libraries and services.
- Navigating documentation for certain libraries.
- Encountering issues where ChatGPT suggests non-existent modules.
- Dealing with unexpected errors or inconsistencies.

Learnings

- Acquired knowledge about various Python libraries.
- Implementing VertexAI on Colab.
- Gaining experience in effectively managing project timelines and tasks.
- ChatGPT giving answers that may work but may also almost work.
- Recognizing the limitations of AI models.

Contributions

- Mihika - Implement VertexAI.
- Astha - Implement various Python models.
- Khushi - Implement various Python models.

Future Scope

- Multilingual Summarization
- Frontend Development
- Domain-Specific Summarization
- Feedback Mechanism

Thank You!