

Gemini Pro - LLM YouTube Video to Text Summarizer

This project utilizes Streamlit and Google's Generative AI to summarize YouTube videos based on their transcripts. It provides a clear and concise summary of video content, highlighting keywords, details, and important elements.

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Introduction

This application uses Streamlit, a Python framework for creating web applications, to build a tool that summarizes YouTube videos based on their transcripts. It leverages Google's Generative AI (Gemini Pro) to generate detailed summaries from the video transcripts.

The core functionalities include:

- Extracting transcript data from YouTube videos using the YouTube Transcript API.
 - Generating summaries using Google's Generative AI based on predefined prompts.
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Setup

Requirements

Make sure you have the following installed:

1. **youtube_transcript_api**: Used to fetch transcripts from YouTube videos programmatically.
2. **streamlit**: A framework for building interactive web applications with Python.
3. **google-generativeai**: Provides access to Google's Generative AI models for generating content based on prompts.
4. **python-dotenv**: Loads environment variables from a .env file into os.environ, making it easy to manage configurations.
5. **pathlib**: Provides an object-oriented interface for filesystem paths, making it simpler to work with file and directory paths.

Installation

1. First we need to create a environment specific to the project folder and it can be done in this way
-> **conda create -p venv python==3.10 -y**
 2. Then we need to activate the environment before writing the code
-> **conda activate venv/**
 3. After this we need to load all the required libraries into our project this can be done individually through command prompt by running it as administrator using the pip command or we can follow this simple way
-> **pip install -r requirements.txt**
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Input

1. Paste the YouTube video link into the input field and press Enter
2. You can tailor the Prompt command as per your requirements and functionalities needed
3. Make sure to hide your Google_api_key when ever you try to post the project somewhere in public spaces like github etc.

Output

- 1.The application will display an image thumbnail of the video.
2. clicking on "Get Summary" will generate and display a detailed summary of the video based on the defined prompts.

Website Link Accessible: <https://gemini-llm-youtube-video-text-summarizer-nf5pcxvsckz2vkfajfna.streamlit.app/>

YouTube Transcript to Detailed Notes Converter ↔

Get clear and concise summary of your Yt Video!!

Paste the YouTube Video Link Below and Press Enter:

<https://www.youtube.com/watch?v=sDIi95CqTiM>



Get Summary

Detailed Notes:

Keywords:

- Artificial Intelligence (AI)
- Product vs. Feature
- Clubhouse
- Standalone AI Devices
- Apple WWDC
- Google I/O
- Language Models
- ChatGPT
- Diffusion Model
- Image Generation

Summary:

The video explores the question of whether AI will become a standalone product or an integrated feature within larger platforms. The author highlights two contrasting approaches:

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The video explores the question of whether AI will become a standalone product or an integrated feature within larger platforms. The author highlights two contrasting approaches:

- **Standalone AI Products:** Devices like Humane AI Pin and Rabbit r1 aimed to provide dedicated hardware for engaging with AI.
- **AI as a Feature:** Major tech companies like Apple and Google have embedded AI capabilities into their operating systems, including writing tools, conversation improvements, and image generation.

The author observes that in the past, standalone products have often been outmaneuvered by features integrated into larger platforms (e.g., Clubhouse vs. Spaces in Discord and Twitter). However, in the case of Apple's WWDC announcements, Apple has both built its own models and integrated ChatGPT as a wrapper, potentially providing a broader user base for the AI technology.

The author concludes that the question of whether AI will be a product or a feature remains open. While history suggests that features may have an advantage, there are exceptions like TikTok and Snapchat. The author also emphasizes the high barriers to entry for creating and training AI models, which could limit the number of new standalone AI products in the future.

Important Images:

- Image of Humane AI Pin device
- Image of Rabbit r1 device
- Graph showing the rise and fall of Clubhouse downloads
- Screenshot of language model integration in Apple's operating system
- Screenshot of image generation feature in Apple's operating system

Important Dates or Deadlines:

- Apple WWDC: June 2024
- Google I/O: May 2024

Relevant Links, Materials, and Courses:

- Apple WWDC website: <https://developer.apple.com/wwdc24/>
- Google I/O website: <https://events.google.com/io/>

Thank You:

Thank you for watching and subscribing. Catch you in the next video!