

REVOLUTIONIZING CONTENT CREATION THROUGH INNOVATIVE AI MODELS

Embarking on the frontier of innovation, our project unfolds a captivating narrative where AI models, fueled by Google Colab's computational might, converge with Hugging Face's pre-trained prowess. The seamless orchestration of ngrok establishes real-time synergy between Flask and React, enriching user interactions. With React's modern interface, the project not only streamlines end-to-end video generation but also unveils transformative possibilities, charting a new era in AI-powered content creation.

Let's begin!



TEAM :DISRUPTORS

PR.NO:CR10

LEVEL OF INNOVATION



Our technology is fully ai model driven project which focuses more on revolutionizing the process of content creation for the current era of social media.

Stability Diffusion Model: This is the backend model which we are using for creating video.

In this project we are trying to build a robust React webapplication with user friendly design that makes a platform for the users to create a video clips just by sending a prompt.

The backend is made such that renders video for the sent prompt.

Story mode:

This is the thing that helps the content creator for creating Story based video with subtitle and speech for the video. Implementation of creating speech is done using gtts

ORIGINALITY

- Cloud-Powered Pre-Trained Model: Harnessing the computational might of Google Colab, the project optimizes a pre-trained model from Hugging Face for efficient video generation.
- Real-Time Interaction with ngrok: The integration of ngrok introduces a dynamic layer, establishing a secure tunnel between Flask backend and React frontend.
- React for Enhanced User Experience: Opting for React on the frontend elevates the user experience by delivering a modern, responsive, and interactive interface.
- End-to-End Video Generation and Display: The project's seamless management of the entire video generation process, from model inference to real-time display in the frontend, showcases a holistic approach.
- Versatility and Transformative Potential: By integrating diverse technologies, the project exhibits versatility, making it adaptable across various fields. Its transformative potential lies in its ability to transcend conventional boundaries, offering a solution with wide-ranging applications.



REALISTIC CAPABILITY

The proposed system of generating videos from user prompts using various technologies like Google Colab, Hugging Face, Python, NGROCK, Flask, and React is feasible.

It would consider factors such as the availability of resources,

- the efficiency of the models used,
- the integration of different technologies, and
- the practicality of the system in a real-world scenario²

Colab Resource Constraints:

- The diffusion AI model requires heavy GPU for running in the local machine.
- So this project is currently developed in the Google Colab external machine.
- This project can be run efficiently by bringing a paid backend server such as RUNPOD which is paid cloud GPU.

VALUE ADDITION: New pipeline of workflow

This project presents a significant value addition by New pipeline of workflow to generate realistic videos from user prompts. It leverages Google Colab's computational power, Hugging Face's state-of-the-art models, and the versatility of Python, NGROK, Flask, and React.

The system is innovative, combining audio and video processing to create engaging content. It's not just about the technology, but also about the seamless user experience provided by the React Web app.



This project demonstrates a high level of skill and the ability to effectively combine different technologies, paving the way for future advancements in text-to-video generation. It's a step towards making AI more accessible and useful in everyday applications.