



Savitribai Phule Pune University
R. H. Sapat College Of Engineering, Management Studies And Research,
Nashik - 422 005
DEPARTMENT OF COMPUTER ENGINEERING
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Intelligent Video Inference System

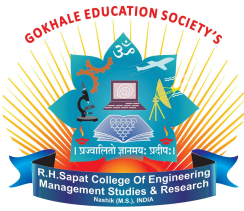
Guided by

Dr. N. A. Deshpande

Presented By

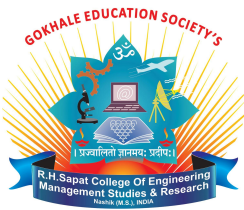
Mayur Patil
Suyash Jadhavar

Omkar Divate
Prashant Bagul



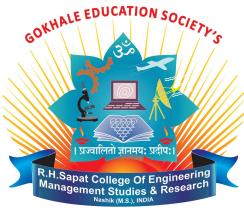
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Introduction

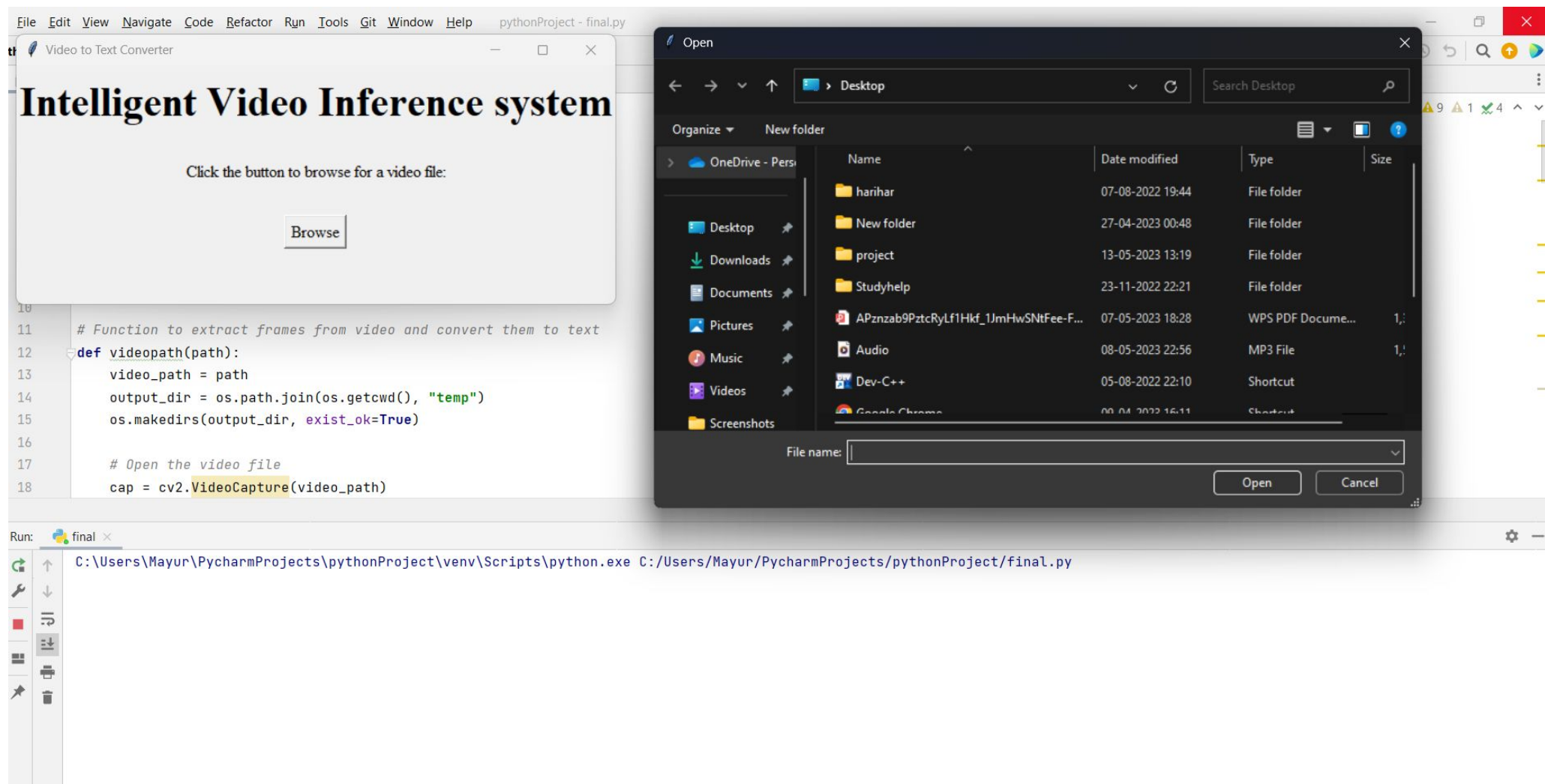
Video inference is a task of localizing interesting events from an untrimmed video and producing textual description (captions) for each localized event. An intelligent video inference system is a computer vision technology that is designed to automatically analyze video data and extract useful information. This system can be used to convert video to frames and then analyze those frames using advanced deep learning techniques such as transformer-based image captioning , which involves using a neural network to generate natural language descriptions of the visual content in each frame.



Problem Statement

Video understanding has become increasingly important as surveillance, social, and informational videos weave themselves into our everyday lives, to overcome such problems we can make use of **‘Intelligent Video Inference System’**.

Implementation



File Edit View Navigate Code Refactor Run Tools Git Window Help pythonProject - final.py

Video to Text Converter

Intelligent Video Inference system

Click the button to browse for a video file:

Browse

```
11 # Function to extract frames from video and convert them to text
12 def videopath(path):
13     video_path = path
14     output_dir = os.path.join(os.getcwd(), "temp")
15     os.makedirs(output_dir, exist_ok=True)
16
17     # Open the video file
18     cap = cv2.VideoCapture(video_path)
```

Open

Desktop

Name	Date modified	Type	Size
harihar	07-08-2022 19:44	File folder	
New folder	27-04-2023 00:48	File folder	
project	13-05-2023 13:19	File folder	
Studyhelp	23-11-2022 22:21	File folder	
APznab9PztcRyLf1Hkf_1JmHwSntFee-F...	07-05-2023 18:28	WPS PDF Docume...	1.1
Audio	08-05-2023 22:56	MP3 File	1.1
Dev-C++	05-08-2022 22:10	Shortcut	
Google Chrome	00-04-2023 16:11	Shortcut	

File name:

Open Cancel

Run: final

C:\Users\Mayur\PycharmProjects\pythonProject\venv\Scripts\python.exe C:/Users/Mayur/PycharmProjects/pythonProject/final.py

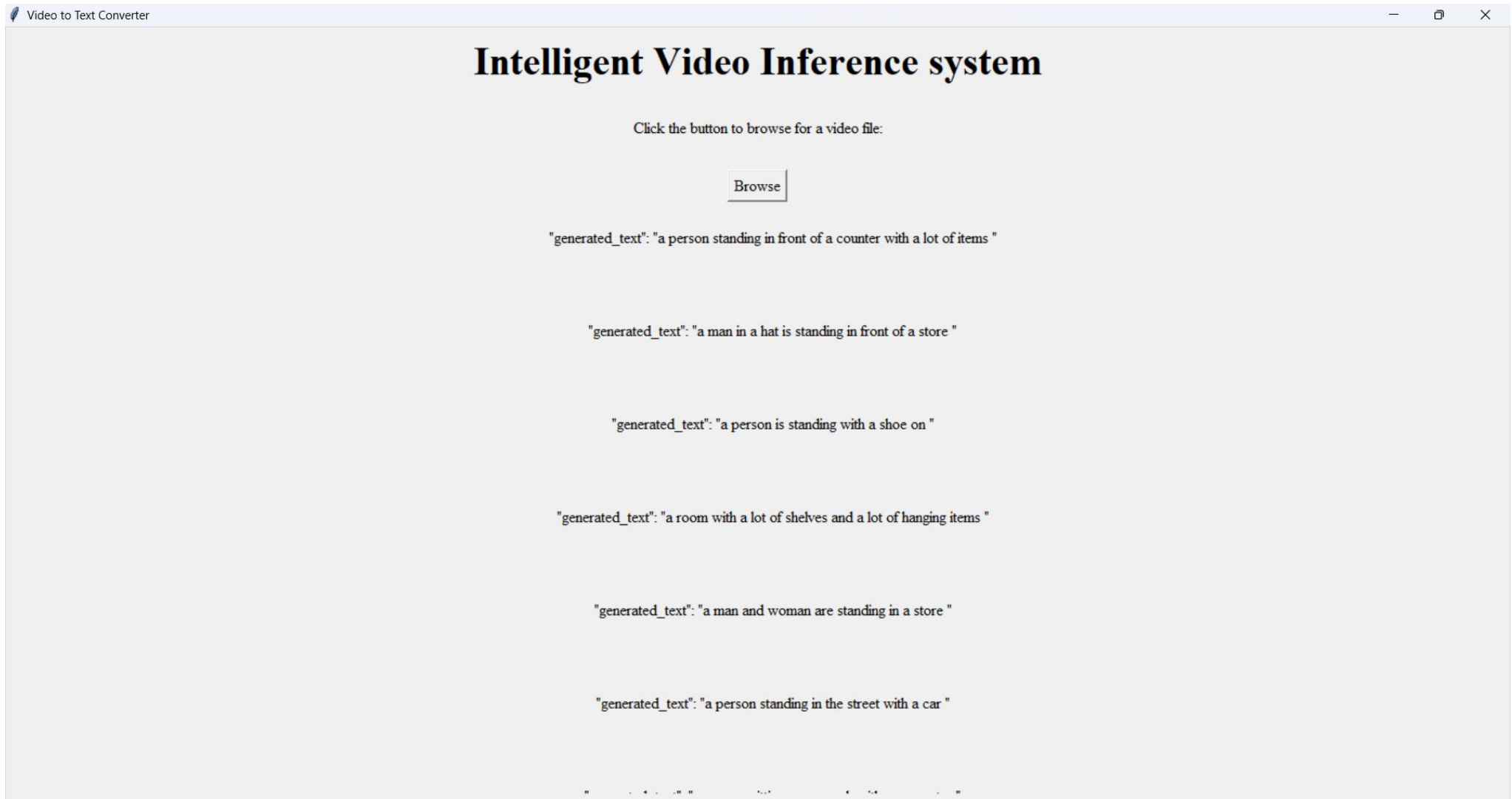





Image	O/P With Blip Small	Accuracy	O/P With Blip Large	Accuracy	O/P With Our Model	Accuracy
	two people on a beach with a dog	rouge1': Score(precision=0.77, recall=0.58, fmeasure=0.66)	a photograph of a woman and her dog	rouge1': Score(precision=0.75, recall=0.5, fmeasure=0.6)	a woman sitting on the beach with her dog	rouge1': Score(precision=0.75, recall=0.5, fmeasure=0.6)
	a man standing next to another man holding a cell phone	rouge1': Score(precision=0.855711, recall=0.66666, fmeasure=0.75)	two men are walking down the street	rouge1': Score(precision=0.857271, recall=0.666666, fmeasure=0.75)	there are two men standing next to each other on a sidewalk	rouge1': Score(precision=0.85932, recall=0.59333, fmeasure=0.7599)
	a row of boats are docked at a pier	rouge1': Score(precision=0.6666666, recall=0.4, fmeasure=0.5)	boats are parked on a dock with a boat in the water	rouge1': Score(precision=0.75, recall=0.6, fmeasure=0.66665)	a photograph of a boat in the water	rouge1': Score(precision=1.0, recall=0.533333, fmeasure=0.696)