A Fun Virtual Cam
Design Project Presentation

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A Fun Virtual Cam

◆ It is an application to enable a better user experience for video conferencing and video related applications.

◆ It changes the background of the video based on the detecting the sentiments from his / her speech.

◆ It can help change the monotonous nature of conventional video calls.

Working Principle

- There are mainly 2 components for this application:
- Video processing
  - Capture video
  - Get sentiments from audio processing task
  - Change the background based on the sentiments
- Audio processing
  - Obtain audio
  - Convert to text
  - Get sentiments from the text
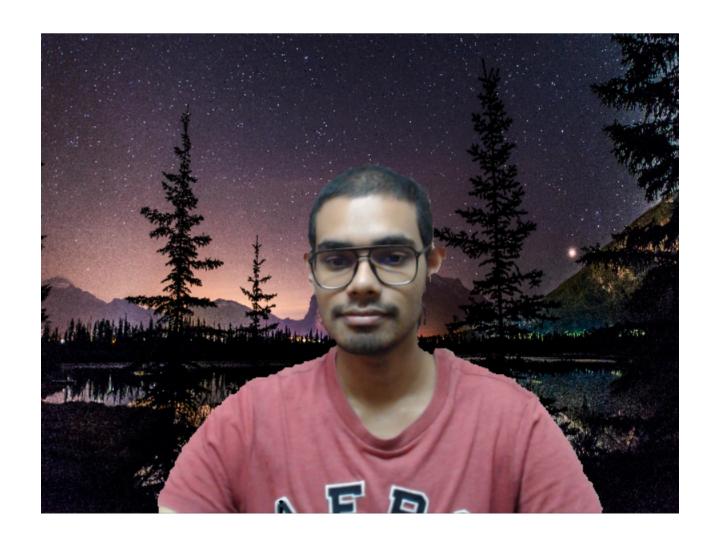 - Give the sentiments to the video processing task

PsuedoCode – Audio Processing Task

```
while True:
        audio = get_audio(index) // Get audio from mic with given index
        text = convert_audio_to_text(audio)
        sentiment = get_sentiment(text)
        if (sentiment == positive)
                flag = 1
        else
                flag = 0
```

PsuedoCode – Video Processing Task

cam = video_capture(index) // index – Index of the web cam to be captured

while True:

```
img = cap.read()
if (flag == 1)
        bg_image = "positive"
else
        bg_image = "negative"
img = change_background(img, bg_image)
show(img)
```

Outputs

Outputs

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THANK YOU