Assignment 5

1. key frame selection technique for video summarization

Obtain the adaptive threshold using the mean of the statistical differences of each batch with

its corresponding standard deviation. Investigate and discuss the influence of changing the batch size using: [15 points]

a) 29 frames

Text

Description automatically generatedText

Description automatically generated

b) 145 frames

Graphical user interface, text

Description automatically generatedText

Description automatically generated

c) The whole video frames

Graphical user interface, text, application

Description automatically generatedGraphical user interface, text

Description automatically generated with medium confidence

2. Retrieve the video at 30 fps using only the key frames that have been selected from part 1 (b) (Use the original corresponding RGB frames). [5 points]

There is no need to show all the video frames in your html results file. But you need to show some samples where you see the effectiveness of changing the batch size as a support to your discussion. What to turn in: Submit your work through Blackboard as one single folder including: • An HTML file called index.html that links to the overall summary of your answers (screenshot of part 1 output). • A folder called CIS\_465 that includes all files, program codes along with the supported files, dataset needed to reproduce your code (if any), etc. Notes: • Please make sure that your program runs successfully at other machines! • Late submissions will receive a penalty of 10% per day up to two days. • No material will be accepted after two days past the deadline. • Email submissions will not be accepted.