Topic: Intelligent Learning Platform

- Build a search engine that can support video segment search. This would allow you to type in a query and see a ranked list of short video segments so that you can precisely locate which segment to watch in a lecture in order to know more about a concept.

If you choose this theme, please answer the following questions in your proposal:

1. What are the names and NetIDs of all your team members? Who is the captain? The captain will have more administrative duties than team members.

   Matthew Kryczka - kryczka3
   Selvaganapathy Thirugnanam - st26
   Diana Arita - dianama2
   Kartik Patel – kartikp2

   Captain – Kartik Patel

2. What topic have you chosen? Why is it a problem? How does it relate to the theme and to the class?

- Intelligent Learning Platform- Build a search engine that can support video segment search. This would allow you to type in a query and see a ranked list of short video segments so that you can precisely locate which segment to watch in a lecture in order to know more about a concept.

- No easy way to search content of a video simply by looking at the title.

- Use Text analysis, Pull model – querying lectures and return the video segments that best matches to the query

3. Briefly describe any datasets, algorithms or techniques you plan to use

- Lecture videos
- Web Scraping
- Ranking
- API calls to get time stamps for video

4. How will you demonstrate that your approach will work as expected? Which programming language do you plan to use?

- Demo video for the demonstration
- Primarily use Python

5. Please justify that the workload of your topic is at least 20*N hours, N being the total number of students in your team. You may list the main tasks to be completed, and the estimated time cost for each task.

- Group of 4, 80 hours of total work

Scraping the video text	10 hours
Indexing	20 hours
Ranking	20 hours
UI	10 hours
Mapping the video	20 hours

At the final stage of your project, you need to deliver the following:

- Your documented source code.
- A demo that shows your implementation actually works. If you are improving a function, compare your results to the previously available function. If your implementation works better, show it off. If not, discuss why.