



UNIVERSITY OF  
**ILLINOIS**  
URBANA-CHAMPAIGN

# An Intelligent Learning Platform

CS-410 Final Project

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## Object

- A course typically includes many keywords and phrases
- A keyword/phrase index benefits the learners
- Not provided in a typical video-based course

## Scope of the Project

Develop a tool to

- Generate the keywords and phrases
- Present them as the index to corresponding videos
- Form an indexed multi-media course

## Data Selection

YouTube open course playlist is used here

- There are a good bunch of these courses in YouTube, e.g., MIT OCW
- The transcripts are corrected and well-organized
- YouTube allows users to embed its videos to webpages

## Key Components

- Data scraping
- Keywords and key phrases generation
  - YAKE!
  - BERT
- Webpage output