

VIDEO INDEXING

STEP 6: SEARCH & RETRIEVAL





Allow users to query video segments by keywords, themes and retrieve relevant results.

Present results with segment details (e.g., timestamps, video path).



Techniques Used



WEB APP DEVELOPMENT



Tool
Flask, HTML.



How
Creates a web interface with search forms and chapter links.



Why
Provides an interactive way to explore video content.



Techniques Used



METADATA SEARCH



Tool
Whoosh (TF-IDF).



How
Searches index for keywords, transcripts, and summaries with filters.



Why
Retrieves relevant keyframes quickly.





Techniques Used



RECOMMENDATIONS



Tool

scikit-learn (TF-IDF, cosine similarity).



How

Suggests similar keyframes based on text similarity.



Why

Enhances discovery of related content.



Techniques Used



DATABASE ACCESS



Tool
SQLite.



How
Queries scene metadata for chapter navigation.



Why
Organizes scene summaries for browsing.



Techniques Used



MODALITY FUSION



How

Boosts result scores for keywords in multiple modalities (e.g., text and visual) (Fusion des modalités).



Why

Improves relevance by combining multimodal evidence.

Importance of Step 6



DELIVERS USABILITY

Users can search and retrieve segments easily via a web interface. Example: Query “Howl” shows segments with timestamps and keywords.

Importance of Step 6



LEVERAGES MULTIMODAL DATA

Combines text, visual, and sentiment for accurate results



ENHANCES APPLICATIONS

Supports use cases like content recommendation or video analysis.



COMPLETES THE PIPELINE

Ties together feature extraction, indexing, and search for a functional system.