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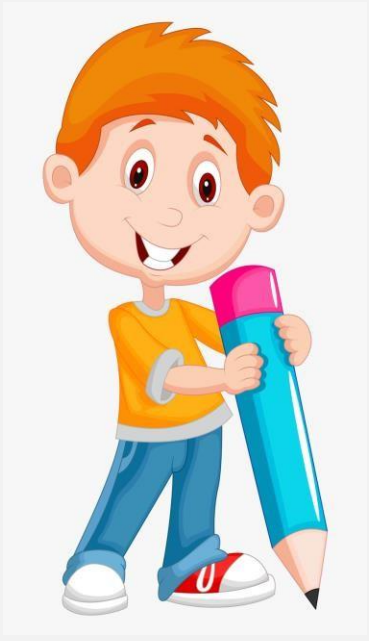
PROJECT TITLE

Bespoke Summarization Tool

utilising Generative AI

AGENDA

- Problem statement
- Project overview
- End users
- Solution
- modelling

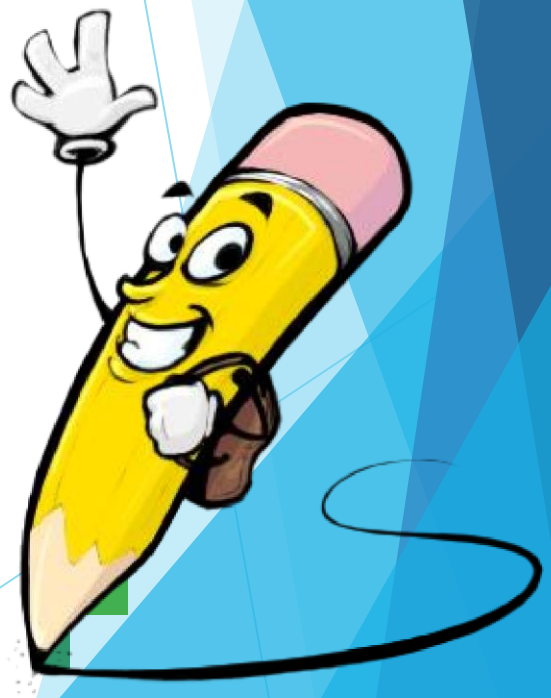


PROBLEM STATEMENT

Developing a Bespoke Summarization Tool employing Generative AI to address the challenge of distilling vast amounts of text into concise summaries tailored to specific needs. The tool aims to enhance efficiency in information processing, aiding users in swiftly extracting key insights from extensive documents with precision and customization.

PROJECT OVERVIEW

- One of my favorite applications of modern Large Language Models Is to create summaries of PDFs.
- More than just any summary, I want the ability to create customizable summaries that can fit any research or learning need.
- This app will allow users to create custom prompts to summarize PDF files using AI-powered language models like ChatGPT and GPT-4



WHO ARE THE END USERS?

Students: Students could use the app to summarize lengthy texts, articles, or academic papers for study purposes, allowing them to grasp key concepts more efficiently.

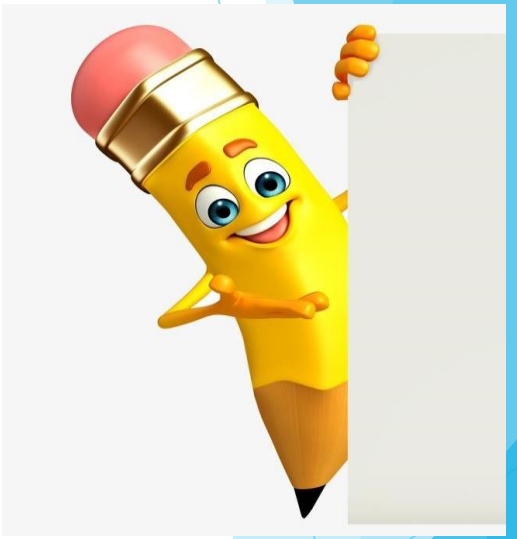
Researchers: Researchers could utilize the app to quickly generate summaries of relevant literature for their own research projects, saving time and effort in sifting through large volumes of information

Professionals: Professionals in various fields such as journalism, law, or business could benefit from the app by summarizing documents, reports, or legal briefs, helping them to extract essential information rapidly.

Educators: Educators could employ the app to create concise summaries of educational materials for classroom use or to aid in preparing lesson plans.

YOUR SOLUTION AND ITS VALUE PROPOSITION

- We develop an app called “Bespoke summarization tool” as a solution
- Using AI-powered language models like chatgpt and gpt4, users will be able to construct personalized prompts for summarizing PDF files with this app.
- The goal is to offer an interface through which users can create personalized summaries from any PDF files
- This application should make advantage of natural language processing and machine learning algorithms to generate brief, cohensive and customized



MODELLING:

Steps:

- Import dependencies
- Define the helper functions
- Create a responsive user interface with Streamlit.

Running the App

Import dependencies:

We import the required modules and libraries for implementing the app. They include OpenAI's GPT models,streamlit for the user interface and some custom classes and functions for processing text using Lang chain

Define the helper functions:

setup documents function is responsible for loading, extracting, splitting the text

custom summary function takes the document, prompt and creates a summarization chain

color chunks function is responsible for creating a visually appealing HTML representation of text chunks with overlaps

Running the app:

Create the conda environment:

conda env create –f environment.yml

You can also just install the required libraries using the following command:

Pip install –r requirements.txt

Open a terminal and navigate to the app directory and run the script

python ai.py

Open a web browser and navigate to http:/localhost:7850/.

Custom Summarization App

Interactive Text Chunk Visualization

Input Text

Given the enormous number of instructional videos
available online, learning a diverse array of multi-step task
models from videos is an appealing goal. We introduce
a new pre-trained video model, VideoTaskformer, focused

Chunk Size

433

1 5000

Overlap Size

50

0 4500

Given the enormous number of instructional videos available online, learning a diverse array of multi-step task models from videos is an appealing goal. We introduce a new pre-trained video model, VideoTaskformer, focused on representing the semantics and structure of instructional videos. We pre-train VideoTaskformer using a simple and effective objective: predicting weakly supervised textual la- bels for steps that are randomly vised textual la- bels for steps that are randomly masked out from an instruc- tional video (masked step modeling). Compared to prior work which learns step representations locally, our ap- proach involves learning them globally, leveraging video of the entire surrounding task as context. From these learned representations, we can verify if an unseen video correctly executes a given task, as well as forecast which steps are likel en task, as well as forecast which steps are likel y to be taken after a given step. We introduce two new benchmarks for detecting mistakes in instructional videos, to verify if there is an anomalous step and if steps are exe- cuted in the right order. We also introduce a long-term fore- casting benchmark, where the goal is to predict long-range future steps from a given step. Our method outperforms pre- vious baselines on these t method outperforms pre- vious baselines on these t asks, and we believe the tasks will be a valuable way for the community to measure the quality of step representations. Additionally, we evaluate Video- Taskformer on 3 existing benchmarks—procedural activity recognition, step classification, and step forecasting—and demonstrate on each that our method outperforms existing baselines and achieves new state-of-the-art performance. 1 s and achieves new state-of-the-art performance. 1 . Introduction Picture this, you're trying to build a bookshelf by watch- ing a YouTube video with several intricate steps. You're annoyed by the need to repeatedly hit pause on the video and you're unsure if you have gotten all the steps right so far. Fortunately, you have an interactive assistant that can guide you through the task at your own pace, verifying each sk at your own pace, verifying each