

Implementing Vector Search in Django



Website

SBERT.net



WHAT?

- IMPLEMENT THE VECTOR BASED SEARCH IN DJANGO USING THE OPEN SOURCE MODELS
- USE BOOTSTRAP TO BUILD THE OUTPUT PAGE FOR THE SEARCH RESULTS

WHY?

- UNDERSTAND THE PROCESS INVOLVED IN BRING THE POWER OF AI TO THE FRONT END
- DIVE INTO THE DETAILS OF THE COMPONENTS AND PIPELINE INVOLVED
- PRACTICE IMPLEMENTING LOGIC WITH LEAST EFFORT

INGREDIENTS?

- DJANGO / LANGCHAIN / SENTENCE-TRANSFORMERS / FAISS INSTALLED
- FAISS VECTOR DATABASE WITH THE PRE-EXISTING VECTORS AND CONTENT
- TERMINAL ON LINUX THAT HAS VIM / PYTHON INSTALLED
- BROWSER THAT CAN OPEN THE LOCALHOST:8000 FOR VIEWING THE SITE

WHAT WAS DONE IN THE BACKGROUND

- DATA OF YOUTUBE VIDEOS, THUMBNAILS AND DESCRIPTIONS WERE COLLECTED FROM THE KAGGLE DATASET

[HTTPS://WWW.KAGGLE.COM/DATASETS/RSRISHAV/YOUTUBE-TRENDING-VIDEO-DATASET?](https://www.kaggle.com/datasets/rsrishav/youtube-trending-video-dataset?select-us_youtube_trending_data.csv)

[SELECT-US_YOUTUBE_TRENDING_DATA.CSV](#)

- FAISS VECTOR DATABASE WAS CREATED USING THE SENTENCE-TRANSFORMERS MODEL "ALL-MINILM-L6-V2"
- BOOTSTRAP EXAMPLES WERE EXPLORED AND THE SUITABLE TEMPLATES WERE SELECTED FROM HERE

[HTTPS://GETBOOTSTRAP.COM/DOCS/4.0/EXAMPLES/](https://getbootstrap.com/docs/4.0/examples/)

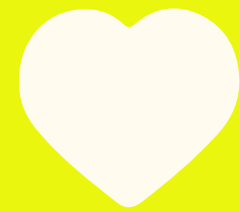
- PRACTICED THE DJANGO FRAMEWORK BY BUILDING MULTIPLE WEB APPS LIKE BLOGS, GALLERIES AND TASK MANAGERS

[HTTPS://DOCS.DJANGOPROJECT.COM/EN/4.2/INTRO/TUTORIAL01/](https://docs.djangoproject.com/en/4.2/intro/tutorial01/)

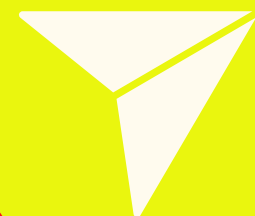
WHAT WILL BE DONE NEXT

1. "WEBSITE" PROJECT AND "VECTOR" APP WILL BE CREATED, CONFIGURED
2. BASE.HTML, WITH HEADER, FOOTER WILL BE BUILT USING THE BOOTSTRAP EXAMPLES
3. VIEWS.PY, URLS.PY WILL BE WIRED FOR RENDERING THE SEARCH.HTML PAGE
4. WRITING THE SEARCH FUNCTION TO GET THE QUERY FROM SEARCH BAR, AND USE IT FOR SEARCHING THE FAISS VECTOR STORE
5. THE RESULT OF THE VECTOR SEARCH FUNCTION WILL BE POPULATED BACK ON THE SEARCH.HTML USING THE DTL FOR LOOP

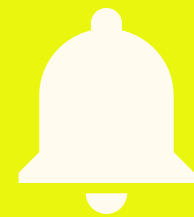
THANKS FOR WATCHING



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