SEEKING TRUTH

COURSE : BUDT7580 TEAM: 01

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PROBLEM STATEMENT

01

Current fact check systems lag behind in their ability to distinguish statements that are partially correct but not false.

02

Generative AI and LLMs worsen this challenge by producing convincing but incorrect statements that blur the line between truth and misinformation.

SOLUTION

We aim to addresses this gap by automating factual reliability checks, detecting figurative language, and providing evidence-based explanations.

BUSINESS CASE

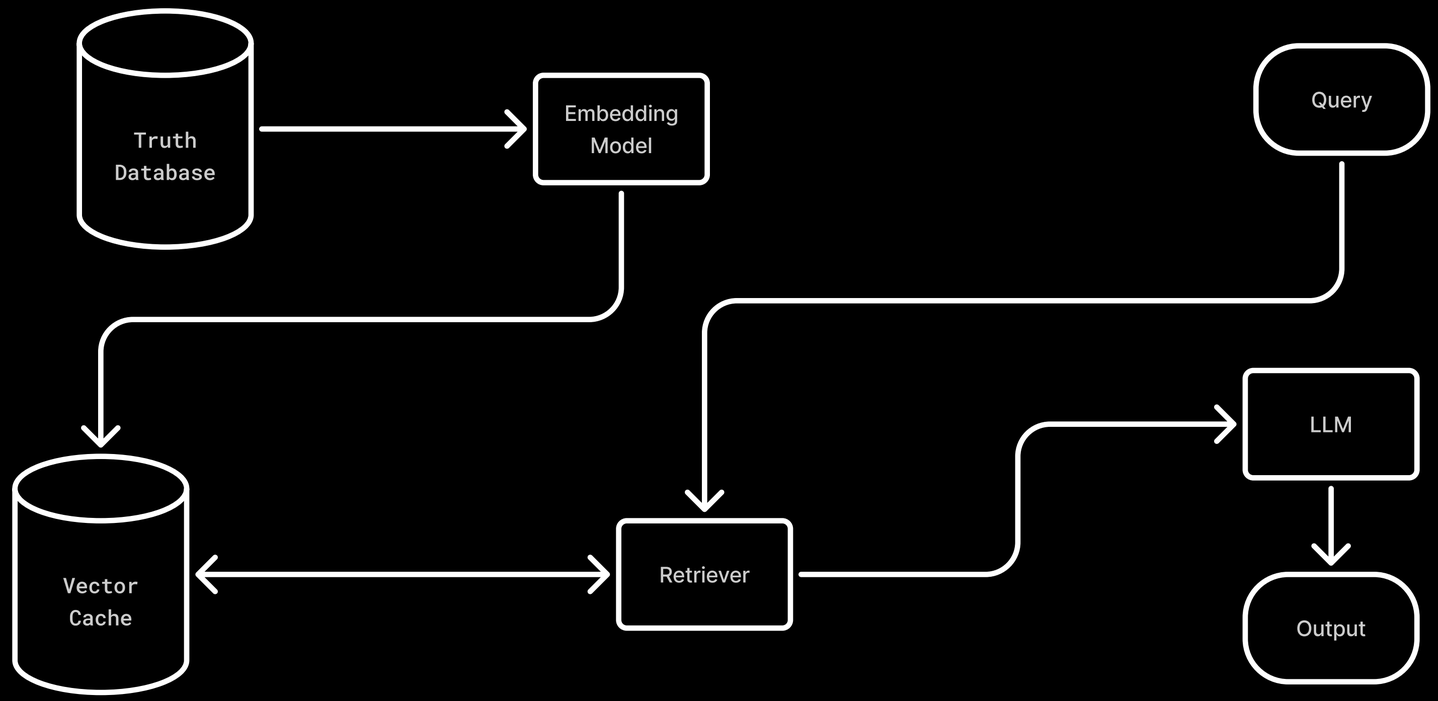
01 Scalable solution to combat misinformation and enhance digital trust across industries.

02 Improves customer experience by separating genuine complaints from emotional or exaggerated feedback.

03 Enhances analytics by integrating truth scores into sentiment dashboards for deeper audience insights.

04 Assists journalists and policy teams in prioritizing fact-checking and improving information reliability.

SYSTEM DESIGN



FRONT-END

streamlit

EMBEDDINGS

openai

LLM

openai

PIPELINE

langchain

MECHANISM

01 OpenAI Embeddings are created and cached for the Truths

02 User Query is embedded and nearest 3 “Truths” are calculated and retrieved.

03 LLM Checks truth and generates classification

04 Based on the distance and classification, A report is generated.

FUTURE WORK

01 Expand data sources by integrating multiple fact-checking platforms (e.g., PolitiFact, FactCheck.org) for broader coverage and cross-validation.

02 Add temporal adaptation through time-decay weighting and regular dataset updates to maintain relevance.

03 Enable better support to handle idioms, sarcasm, and figurative speech using a multi LLM architecture.

04 Integrate Graph + Vector Data stores to facilitate more accurate retrieval

ATTRIBUTIONS

DATASET

snopes.com

REFERENCES

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THANK YOU