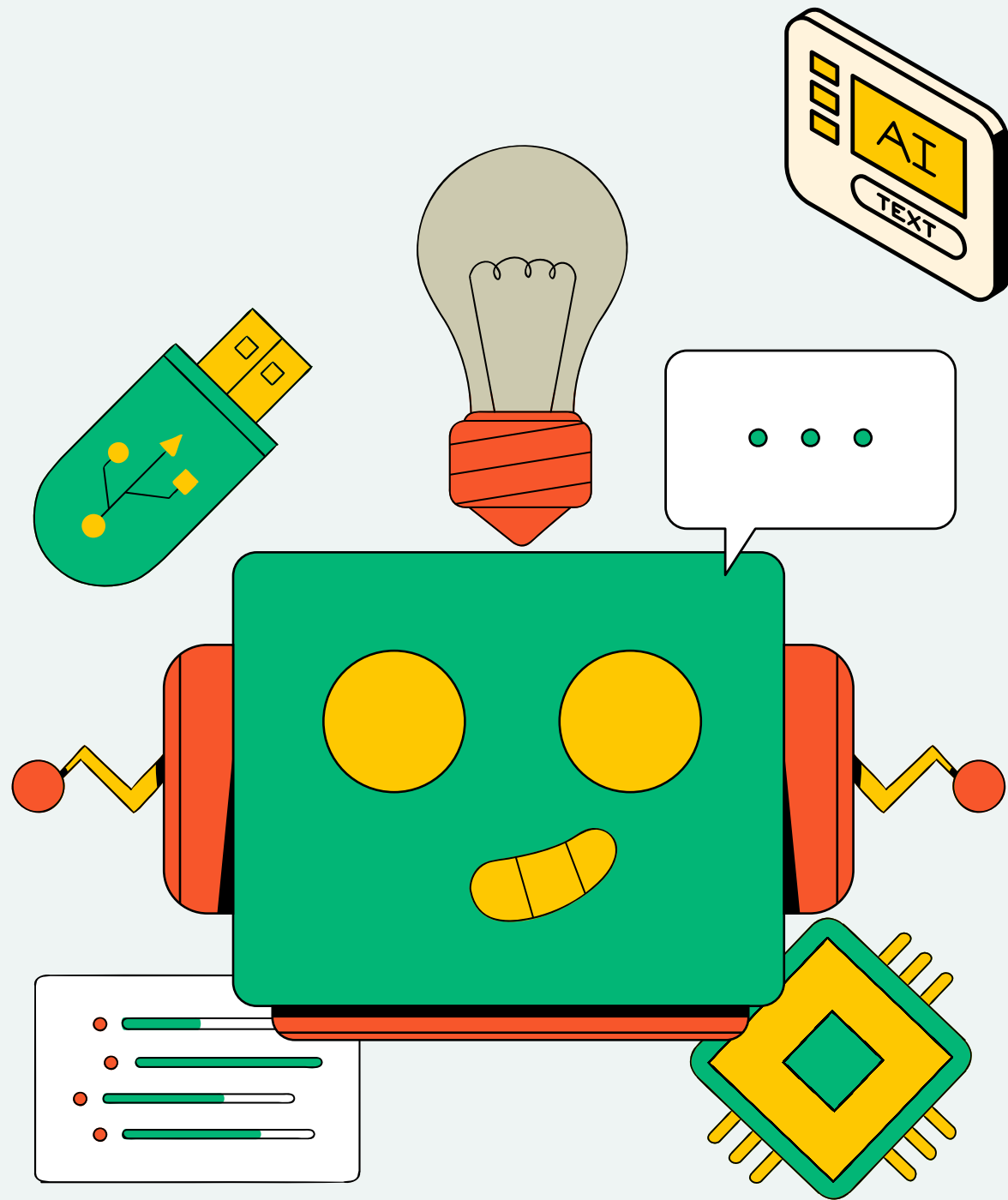


ANALYTICS PRACTICUM
BUAN 6390.002



ADARAN

A JSOM CHATBOT

PRESENTED BY:

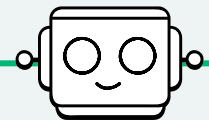
GROUP 3




**"WE WERE TOLD TO FAIL FAST. WE DID FAIL...
JUST NOT FAST ENOUGH!"**

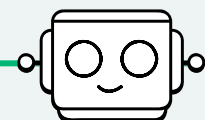


JOURNEY SO FAR...



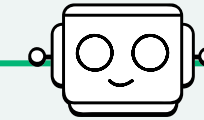
DIALOGFLOW

Ease of Use –  High
Flexibility –  Low
LLM Integration –  None
Hosting & Control – Google Cloud
Learning Outcome – Introductory



RASA

Ease of Use –  Low
Flexibility –  Medium
LLM Integration –  Partial
Hosting & Control – On-Prem
Learning Outcome – Intermediate



LANGCHAIN

Ease of Use –  Medium
Flexibility –  High
LLM Integration –  Full (via Ollama)
Hosting & Control – Custom (Streamlit UI)
Learning Outcome – Advanced (Real RAG)



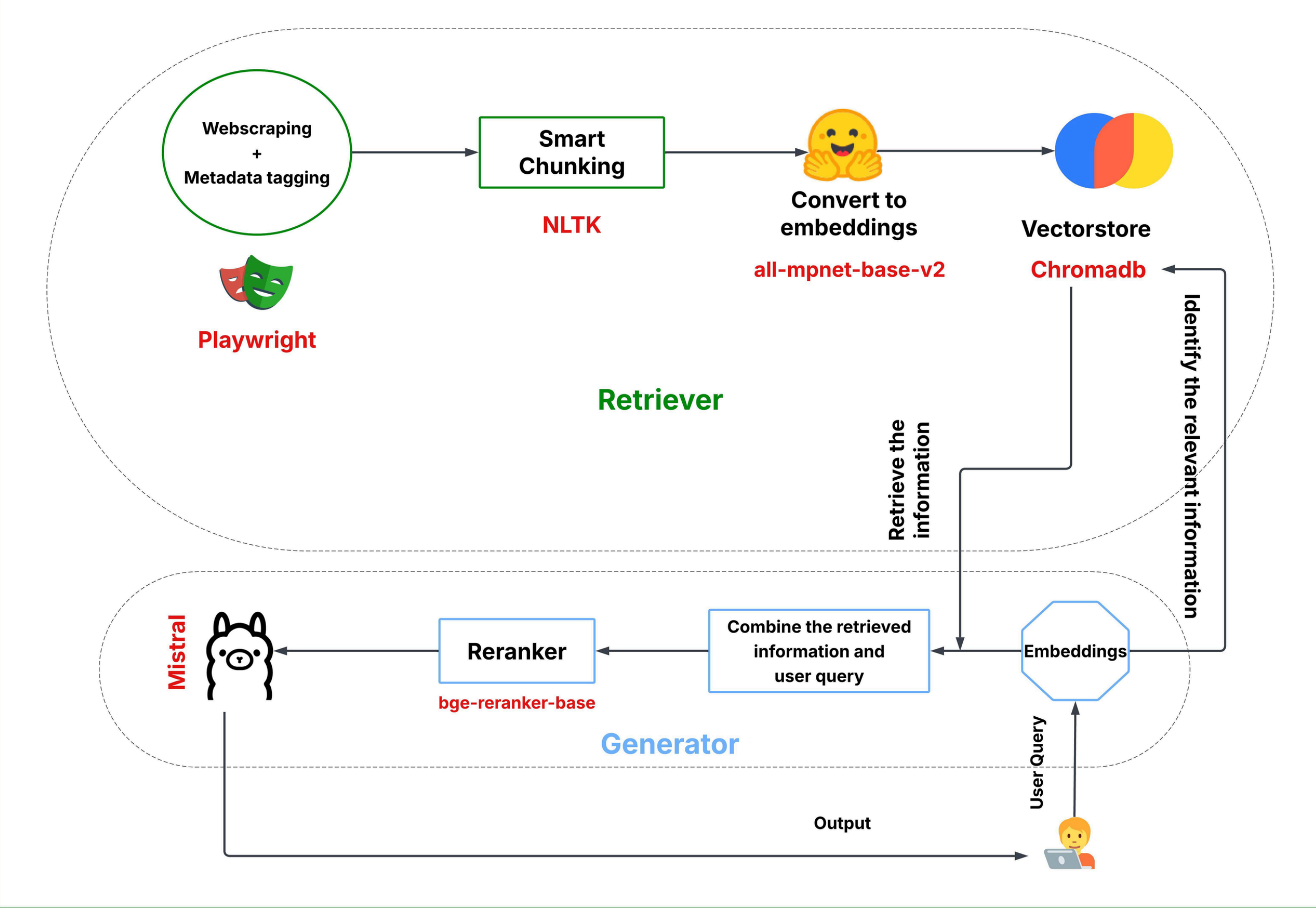
MEET ADARAN – YOUR INTELLIGENT JSOM GUIDE



- Built on 1,500+ JSOM webpages spanning programs, admissions, faculty, and policies
- Designed for full transparency – every answer includes source links
- Perfect guide for navigating official JSOM information – no more guessing or dead links
- Runs completely locally using Mistral via Ollama – no OpenAI, no cost, no API limits
- Average response latency: 20–60 seconds, depending on question complexity
- Fully customizable, modular, and open for future integrations



THE ADARAN ARCHITECTURE



USE CASES- WHAT STUDENTS CAN ASK

Designed for every JSOM student, one question at a time

Deploy 



What are different MBA concentrations available at JSOM?



The different MBA concentrations available at JSOM include Accounting, Business Analytics, Energy Management, Finance, Healthcare Leadership and Management, Information Technology Management, Innovation & Entrepreneurship, Internal Audit, International Management, Leadership in Organizations, Marketing, Real Estate, Strategic Management, Supply Chain Management, and Systems Engineering & Management. Some of these concentrations may not be available online or only partially online.



Answered in 158.04 seconds.

Sources:

- <https://mba.utdallas.edu/academics/professional-mba-flex/curriculum>
- <https://mba.utdallas.edu/academics/professional-mba-online/curriculum>
- <https://jindal.utdallas.edu/undergraduate-programs/prospective-undergraduates>


Type your question here...



ACADEMICS & CURRICULUM

USE CASES- WHAT STUDENTS CAN ASK

Designed for every JSOM student, one question at a time

Deploy 



What is the admission process for freshmen students?



The admission process for freshman students at UT Dallas involves applying through either ApplyTexas or Common Application during their senior year of high school. They are considered "first-time freshmen" if their first enrollment at a college or university, excluding summer, will occur at UT Dallas within two years of graduating from high school, even if they have earned college credit before high school graduation (i.e., dual enrollment courses). The application process also considers them for admission to the Jindal School of Management. For more detailed information about deadlines, fees, financial aid, and other procedures, applicants are encouraged to visit the UT Dallas undergraduate admission office or Future Undergraduates page.



Answered in 115.80 seconds.

Sources:

- <https://jindal.utdallas.edu/admission-requirements/undergraduate>
- <https://jindal.utdallas.edu/admission-requirements/undergraduate>

Type your question here...



ADMISSIONS

USE CASES- WHAT STUDENTS CAN ASK

Designed for every JSOM student, one question at a time

Deploy ⋮



Tell me about scholarships at JSOM for accounting majors



At JSOM (Jindal School of Management), both MS Accounting Flex students and BS Accounting students are eligible for their respective graduate and undergraduate scholarships. Additionally, there are several scholarships that both groups may apply for, such as the AICPA Scholarships, Dallas CPA Society Scholarship Program, Educational Foundation for Women in Accounting, National Society of Accountants Scholarship Foundation, Texas State Board of Public Accountancy Fifth-Year Accounting Student Scholarship Program, and the Student Experiences Faculty Who Cares for Me and My Success Joella Degollado Scholarship. It is important to note that if you are interested in applying for a scholarship, you should submit your Master's in International Management Studies application before doing so.

🕒 Answered in 124.06 seconds.

Sources:

- <https://accounting.utdallas.edu>

Type your question here...



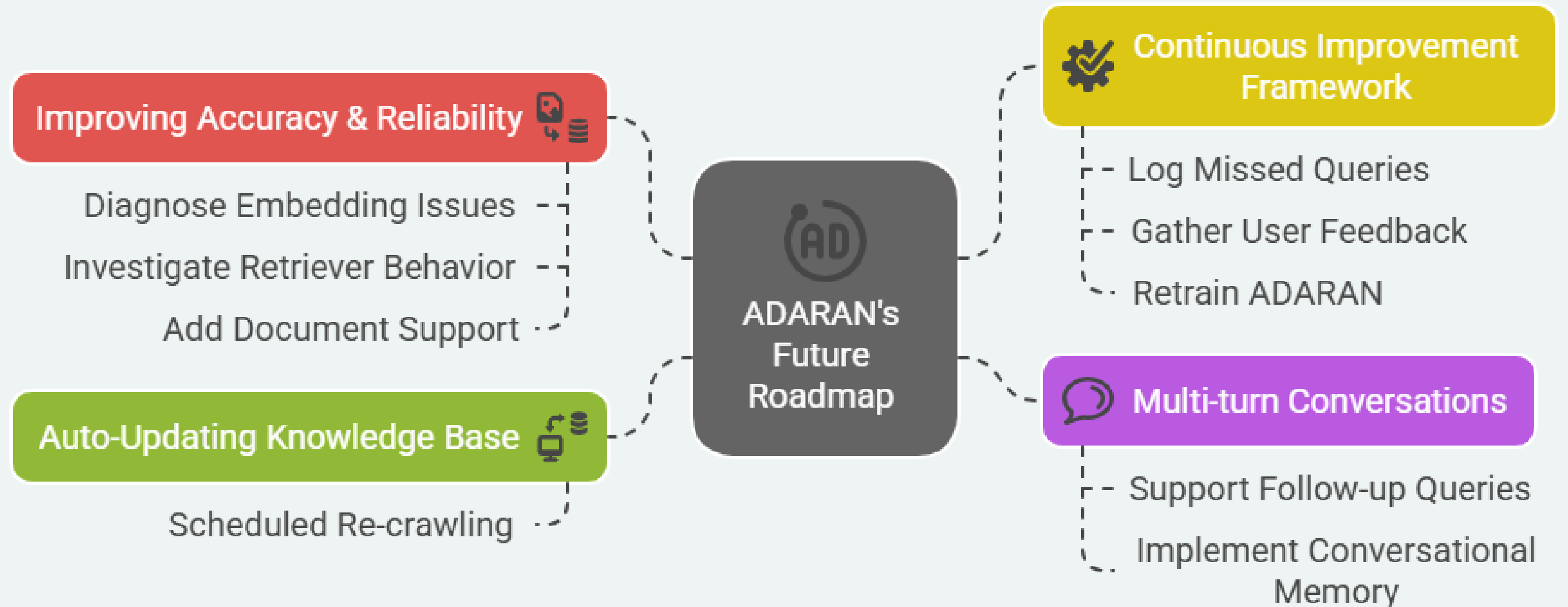
SCHOLARSHIPS

DEMO

EVALUATING ADARAN – THE DIAGNOSTICS THAT MATTER

Parameter	Metric	Evaluation Method	Status
LLM Model	Accuracy, latency	QA test set, response time	✔ Measured latency (20–60 sec)
Prompt Template	Answer quality	A/B testing, manual review	● Manual fine-tuning underway
Embedding Model	Retrieval precision	Top-k relevance validation	✔ mpnet performs well
Chunk Size	Answer completeness	Manual inspection of responses	✔ ~800 chars with 2-sentence overlap
Retriever k	Noise vs relevance	Precision@k testing	✔ Tuned (k=10 retrieve, 5 rerank)
Chain Type	Clarity and reliability	Manual QA	✔ Custom reranked QA chain
Robustness	Fault tolerance	Noisy query test	● Future test set planned

THE FUTURE OF ADARAN - WHAT'S NEXT



KEY LEARNINGS

More than just a project — it was a deep dive into real-world NLP and GenAI

We explored and implemented:

- ◆ Web scraping with Playwright
- ◆ Data preprocessing, chunking, metadata tagging
- ◆ Vector embedding with Transformers
- ◆ Retrieval-Augmented Generation (RAG) pipelines
- ◆ Local LLMs, rerankers, and a custom QA chain
- ◆ Front-end deployment with Streamlit

For many of us, this was our **first full-scale NLP product**



CLOSING REFLECTIONS



Some of us started as complete beginners in GenAI, NLP, or ML engineering

Today, we're walking away with confidence, skills, and a new vision for our careers

"WE DIDN'T JUST BUILD ADARAN. WE BUILT OURSELVES."