
CAPSTONE PROJECT

COLLEGE ADMISSION AGENT

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OUTLINE

- Problem Statement
- Technology used
- Wow factor
- End users
- Result
- Conclusion
- Git-hub Link
- Future scope
- IBM Certifications

PROBLEM STATEMENT

- The college admission process is frequently a source of stress and confusion for prospective students and their families. They encounter challenges in locating clear, consolidated, and current information regarding admission policies, eligibility requirements, course specifics, fee structures, and crucial deadlines.
- **Proposed Solution:** A College Admission Agent, empowered by Retrieval-Augmented Generation (RAG), to simplify and streamline the student admission process. This AI-powered assistant will deliver prompt and precise responses to natural language questions from potential students by retrieving and summarizing information from trusted institutional databases and official sources.

TECHNOLOGY USED

- IBM Cloud Lite Services
- Retrieval-Augmented Generation (RAG)
- Natural Language Processing (NLP)
- IBM Granite model

IBM CLOUD SERVICES USED

- IBM Cloud Watsonx AI Studio
- IBM Cloud Watsonx AI runtime
- IBM Cloud Agent Lab
- IBM Granite foundation model

WOW FACTORS

- This agent greatly improves the applicant experience by offering immediate, 24/7 assistance and decreasing the reliance on manual inquiries.

Unique features:

- **Instant & Accurate Responses:** Provides exact answers to questions about admission policies, eligibility, and FAQs by utilizing trusted, real-time data.
- **Personalized Guidance:** Assists with course selection, application guidance, and understanding fee structures based on user inquiries.
- **Deadline Reminders:** Informs applicants about important deadlines, thereby minimizing the risk of missed opportunities.
- **Increased Transparency:** Enhances transparency and accessibility within the college admissions framework.
- **Reduced Manual Workload:** Automates replies to frequent questions, enabling administrative staff to concentrate on more intricate problems.

END USERS

- Prospective Students
- Parents and Guardians
- High School Counselors
- College Admissions Office Staff

RESULTS

IBM watsonx

Upgrade ⓘ ⚙

Supraja Mekala's Account ▾ Dallas ▾ SM

Projects / College admission agent / watsonx Agent

Share feedback ⓘ Autosaved 9:11 AM

New agent + Deploy ⓘ

Select a foundation model

To choose a model, review characteristics such as tasks that models perform. Compare model benchmarks with scores in the range 0–100. Higher scores are better.

All models Model benchmarks

🔍 Search for a model or task

🔗

granite-3-3-8b-instruct

Granite-3.3-8b-Instruct is an IBM-trained, dense decoder-only models,

Provider: IBM Type: Provided mo...

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Llama-3-2-11b-vision-instruc is an auto-regressive language model that uses an

Provider: Meta Type: Provided mo...

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llama-3-2-90b-vision-in...

Llama-3-2-90b-vision-instruct is an auto-regressive language model that uses an

Provider: Meta Type: Provided mo...

🔗

🔗

llama-3-3-70b-instruct

This version of Llama-3.3-70b-instruct is also the FP8 quantized version of the

Provider: Meta Type: Provided mo...


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edunet






foundation





RESULTS


 IBM watsonx


Upgrade ?  Supraja Mekala's Account  Dallas  SM

Projects / College admission agent / watsonx Agent [Share feedback](#) 


 Autosaved 9:06 AM  New agent + [Deploy](#)   

 Build  Model: granite-3-3-8b-instruct  


Setup 

Configuration 

Framework

LangGraph 


Architecture


ReAct 

Instructions


[Advanced configuration](#)


You are a College Admission Agent powered by Retrieval-Augmented Generation (RAG).
Your job is to provide complete, up-to-date, and reliable information about college admissions, eligibility, courses, fees, scholarships, deadlines, and procedures.





Knowledge 

Agent preview



 You: 09:06 AM
Hi

 watsonx Agent 09:06 AM
Hello! How may I assist you with college admission information today?
[► How did I get this answer?](#)

 You: 09:07 AM
how do i apply for a scholarship?

 watsonx Agent 09:07 AM
Applying for scholarships involves several steps. Here's a general guide:

- Research Scholarships:** Look for scholarships that you are eligible for. This could be based on academic merit, financial need, extracurricular activities, field of study, or other criteria. Websites like Scholarships.com, Fastweb, and your college's financial aid office are good places to start.

Type something...  

RESULTS

IBM watsonx

Upgrade ? 🔔

Supraja Mekala's Account ▾ Dallas ▾ SM

Projects / College admission agent / watsonx Agent

Share feedback β Autosaved 9:02 AM New agent + Deploy 🔒 ⓘ

Build

AI Model: granite-3-3-8b-instruct

Setup

Configuration

Framework Architecture

LangGraph ReAct

Instructions

You are a College Admission Agent powered by Retrieval-Augmented Generation (RAG).
Your job is to provide complete, up-to-date, and reliable information about college admissions, eligibility, courses, fees, scholarships, deadlines, and procedures.

Knowledge

Tools

Agent preview

You: 09:01 AM

what are the steps for admission process

watsonx Agent 09:01 AM

The college admission process typically involves several steps. Here's a general outline:

1. **Research Colleges:** Identify colleges that match your academic interests, career goals, and financial situation.

2. **Check Eligibility:** Ensure you meet the basic eligibility criteria such as educational qualifications, age limits, and any specific requirements for your chosen course.

3. **Application Mode:** Most colleges accept applications either online or offline. Check the mode specified by the college.

4. **Application Form:** Fill out the application form accurately. This usually includes personal details, academic history, and sometimes a personal statement or essay.

5. **Required Documents:** Gather all necessary documents such as mark sheets, certificates, recommendation letters, and identity proof. Some colleges may also require an entrance test score.

Type something...

RESULTS

The College Admission Agent was successfully developed using a Retrieval-Augmented Generation (RAG) architecture, integrating an AI-powered conversational interface with institutional admission datasets and official policy documents.

Key outcomes include:

Accurate Information Retrieval :

The agent consistently provided up-to-date admission details by fetching data from verified university websites, government portals, and admission brochures.

Source citations were displayed alongside responses, improving transparency.

Structured & User-Friendly Responses :

Provided answers in well-organized formats with headings, bullet points, and numbered steps for better readability. And highlighted important updates such as changes in deadlines or eligibility requirements.

Robust Handling of Edge Cases :

When information was missing, the agent clearly stated “Needs official confirmation” and guided users to the correct authority. In cases of conflicting data from different sources, both versions were presented for comparison.

Scalability :

The system architecture supports integration of additional colleges/universities without major redesign.

Can be adapted for state-level or country-level admission assistance

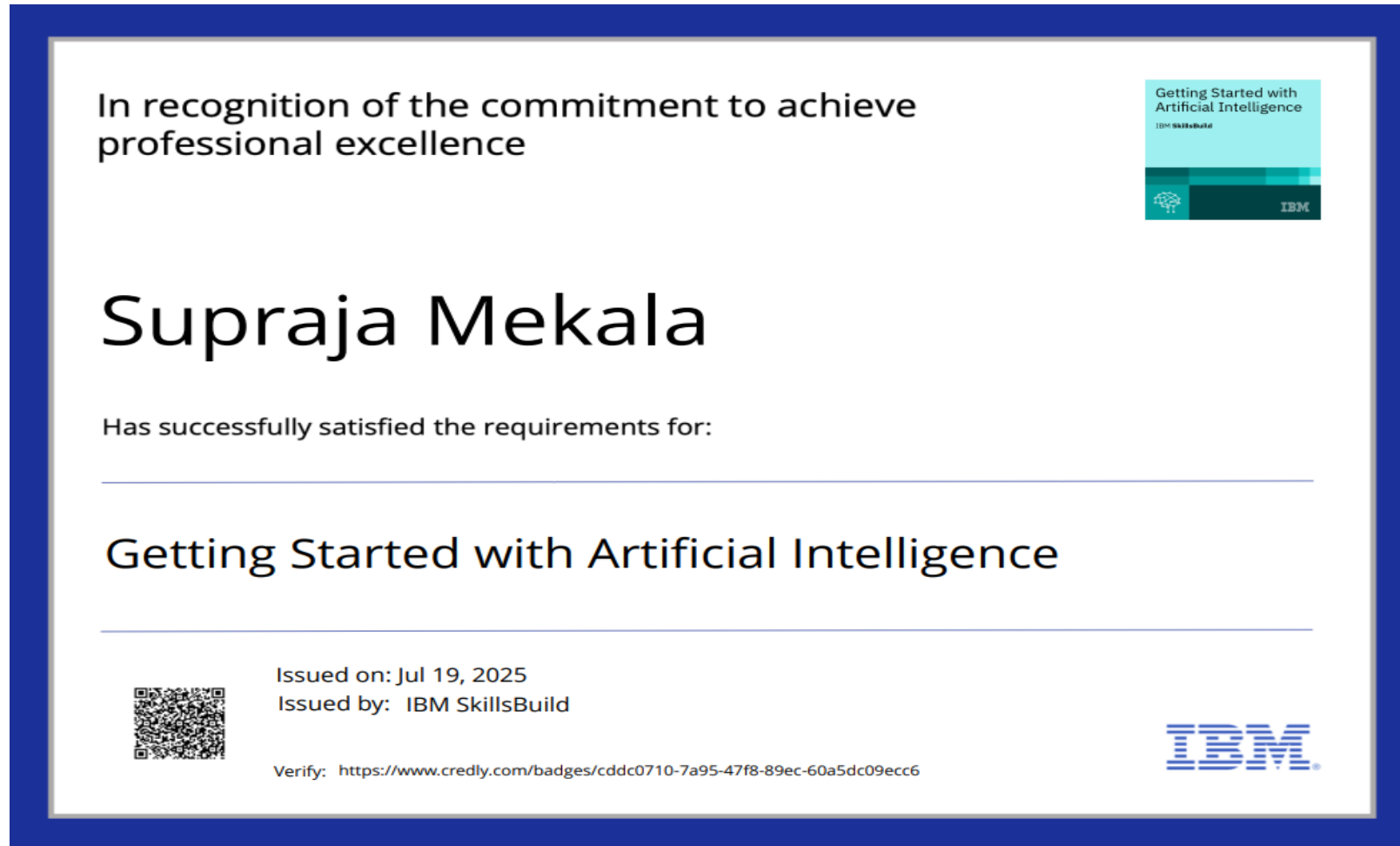
CONCLUSION

- The College Admission Agent project demonstrates that RAG-based AI systems can significantly enhance the admission guidance process by providing instant, reliable, and structured information to students, parents, and counselors.
- By combining retrieval from verified sources with natural language generation, the agent ensures that responses are both accurate and easy to understand, addressing a key gap in traditional admission helplines and manual inquiry processes.
- The agent is not only effective for domestic admissions but also supports international applicants with tailored guidelines, making it versatile for global use. Its scalability means that the same framework can be expanded to include more institutions, multiple languages, and advanced personalization features.
- With further integration of real-time notice updates and chat-based application tracking, this system could evolve into a full-scale digital admission counselor, reducing the workload of admission offices while improving accessibility for applicants worldwide.

FUTURE SCOPE

- **Multilingual Support:** Broadening the agent's capabilities to help students in various languages.
- **Application Form Filling Assistance:** Directing students step-by-step through the online application form.
- **Integration with University Systems:** Linking the agent with student information systems to give personalized updates on application status.
- **Scholarship and Financial Aid Information:** Proactively offering information and suggestions for relevant scholarships and financial aid opportunities.
- **Virtual Campus Tours:** Integrating with virtual tour platforms to provide an immersive campus experience.

IBM CERTIFICATIONS



IBM CERTIFICATIONS



IBM **SkillsBuild**

Completion Certificate



This certificate is presented to

Supraja Mekala

for the completion of

Getting Started with Artificial Intelligence

(PLAN-E624C2604060)

According to the Your Learning Builder - Plans system of record

Completion date: 19 Jul 2025 (GMT)

GITHUB LINK

- GIT-HUB LINK : <https://github.com/Supraja1125/college-admission-agent>



THANK YOU