CAPSTONE PROJECT

INTERVIEW TRAINER AGENT

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OUTLINE

- **Problem Statement** (Should not include solution)

- **Proposed System/Solution**

- **System Development Approach** (Technology Used)

- **Algorithm & Deployment**

- **Result (Output Image)**

- **Conclusion**

- **Future Scope**

- **References**

PROBLEM STATEMENT

- Job interviews are competitive and often stressful for candidates. Many applicants are unsure of the types of questions to expect and how to answer them effectively. A smart preparation tool is needed to boost confidence and readiness.

PROPOSED SOLUTION

- Proposed Solution

- The Interview Trainer Agent helps users prepare for interviews by generating personalized questions and answers using AI.

- It uses **IBM Granite LLM** with Watsonx.ai to create customized Q&A.

- Retrieves real interview data from **Watson Discovery**, professional networks, and company reviews.

- Adapts based on **resume, job title**, and **experience level**.

- Supports both **technical and behavioral** interview rounds.

- Gives **model answers, improvement tips**, and **feedback** to help users perform better.

SYSTEM DEVELOPMENT APPROACH

- Technologies Used:

- - IBM Watsonx.ai with Granite LLM

- - IBM Watson Discovery (data retrieval)

- - IBM Cloudant (document database)

- - IBM Cloud Object Storage (resume & history)

- - IBM Natural Language Understanding (feedback analysis)

- - Frontend: ReactJS / HTML

- - Backend: Python (Flask/FastAPI)

ALGORITHM & DEPLOYMENT

- Algorithm:

- - Input: Resume or job role

- - Retrieval: Interview data via Watson Discovery

- - Generation: Granite LLM produces custom Q&A

- - Output: Personalized mock interviews

- Deployment:

- - IBM Cloud infrastructure

- - Web-based frontend with chat interface

RESULT

- Sample Output:

- - Role: Software Engineer (Fresher)

- - Technical Q: Explain OOP concepts in Python

- - Behavioral Q: Describe a challenge you overcame

- - Feedback: Improve clarity, maintain structure

- Mock scores and feedback help boost confidence.

CONCLUSION

- The Interview Trainer Agent provides personalized, AI-powered interview preparation. It enhances user confidence and performance through real-time practice, feedback, and role-specific content.

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FUTURE SCOPE

- 1. Add voice-based mock interview support

- 2. Expand question database across more roles

- 3. Integrate video analysis for body language feedback

- 4. Deploy on mobile platforms

- 5. Use reinforcement learning for smarter feedback

REFERENCES

- List and cite relevant sources, research papers, and articles that were instrumental in developing the proposed solution. This could include academic papers on bike demand prediction, machine learning algorithms, and best practices in data preprocessing and model evaluation.

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IBM **SkillsBuild**　　　Completion Certificate

This certificate is presented to

Sushanth Derangula

for the completion of

Lab: Retrieval Augmented Generation with LangChain

(ALM-COURSE_3824998)

According to the Adobe Learning Manager system of record

Completion date: 24 Jul 2025 (GMT)　　　　　　　**Learning hours:** 20 mins

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THANK YOU