
CAPSTONE PROJECT

INTERVIEW TRAINER AGENT

Presented By:

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OUTLINE

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PROBLEM STATEMENT

Job seekers and professionals often struggle to effectively prepare for job interviews due to the vast array of potential questions, industry-specific expectations, and evolving hiring trends. Manually researching, practicing, and refining interview responses across various roles and domains is time-consuming and inefficient, making it challenging to build confidence and achieve success in competitive job markets.

Proposed Solution:

An Interview Trainer Agent uses AI to prepare users for job interviews. It generates tailored question sets and strategies based on profile, experience, and job role. Users input their resume or job title, and receive targeted questions, model answers, and improvement tips. The agent supports both technical and soft skill assessments. It aims to build user confidence and increase success rates in competitive hiring environments.

TECHNOLOGY USED

IBM Cloud Lite Services:

Natural Language Processing (NLP):

NLP is a subfield of artificial intelligence that deals with the interaction between computers and humans in natural language, enabling computers to understand, interpret, and generate human language. IBM's NLP capabilities are part of its broader AI solutions, including IBM Watsonx and Granite models.

Retrieval Augmented Generation (RAG):

RAG is a technique in NLP that combines information retrieval and generative models to produce more accurate, relevant, and contextually aware responses by leveraging external knowledge bases and reducing reliance on static training data. RAG enhances the quality of generated text by retrieving relevant information from external sources and incorporating it into the generation process.

IBM Granite Model:

IBM Granite is a family of open, performant, and trusted AI models tailored for business and optimized to scale AI applications. These models provide robust natural language capabilities, including language, code, time series, and guardrail options, and are designed to work seamlessly with RAG and other AI technologies.

IBM CLOUD SERVICES USED

- IBM Cloud Watsonx AI Studio:
 - IBM Watsonx AI Studio is an integrated AI development studio that allows users to build, deploy, and manage machine learning and generative AI solutions. It provides a suite of tools for all skill levels, enabling collaboration and development of AI solutions with or without code.
- IBM Cloud Watsonx AI Runtime:
 - IBM Watsonx AI Runtime powers the Watsonx AI Studio, providing a robust environment for building, running, and managing AI models. The runtime plan includes details for working with foundation models and metering prompt inferencing using Resource Units.
- IBM Cloud Agent Lab:
 - IBM Cloud Agent Lab is a tool within Watsonx AI that allows users to build and deploy AI agents. These agents can be configured to make decisions and perform tasks on behalf of end-users, using specified parameters and tools. The Agent Lab is currently in beta.
- IBM Granite Foundation Model:
 - IBM Granite is a family of open, performant, and trusted AI models tailored for business. These models deliver exceptional performance at a competitive price without compromising safety.

WOW FACTORS

This agent will significantly reduce interview preparation time, improve the quality of candidate responses, help job seekers gain clarity and direction, and boost career readiness by making personalized practice more accessible and actionable.

Unique features:

Instantly generates interview questions based on job title and experience.

Offers custom tips and answer strategies to help you stand out.

Prepares you for both coding and behavioural interviews.

Helps you reduce your interview anxiety through repeated, realistic practice.

END USERS

- Job Seekers:
 - Individuals preparing for job interviews, looking to improve their skills and confidence.
- Freshers:
 - Recent graduates or entry-level professionals seeking to enhance their interview skills and increase their chances of getting hired.
- Career Coaches:
 - Professionals working with clients to improve their interview skills, seeking a tool to support their coaching services.

RESULTS

Build >

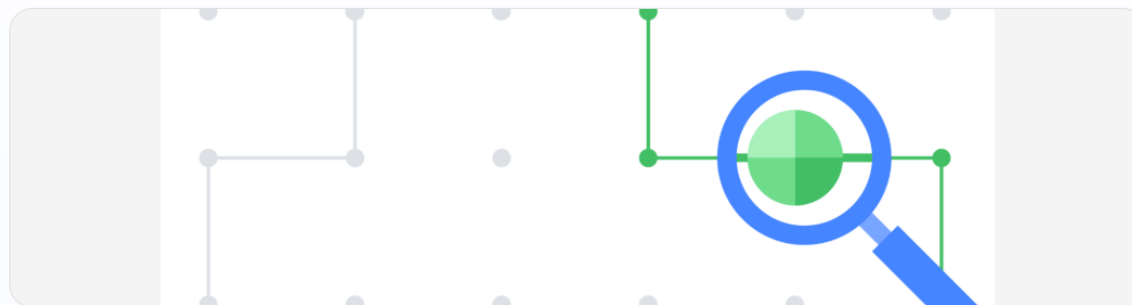
Agent preview



Interview Trainer Agent 02:37 PM

Welcome to Interview Trainer Agent

I'm your Interview Trainer - I'll help you with Interview Preparation.



Type something...



RESULTS

Build >

Agent preview



You: 02:33 PM

Give interview questions set for react developer



Interview Trainer Agent 02:33 PM

Here are some interview questions for a React Developer role, gathered from various sources:

1. What is React and why was it created?

- (Source: [GeeksforGeeks](#))

2. What are the key differences between React.js and React Native?

- (Source: [Simplilearn](#))

3. Explain how the Virtual DOM works in React.

- (Source: [Medium](#))

4. What are React Hooks, and why were they introduced?

- (Source: [InterviewBit](#))

5. How can you handle form submissions in React?

- (Source: [UseBrainTrust](#))

Type something...



RESULTS

Build >

Agent preview

 You: 02:36 PM

Summarize resume document

 Interview Trainer Agent 02:36 PM

Sathvik Palivela is a Computer Science student with experience in web development and AI applications. He is proficient in multiple programming languages and frameworks. His educational background includes a Bachelor of Technology degree from VSM College of Engineering (2022-2026) and an Intermediate course from SKPGN Govt Jr College (2020-2022).

Sathvik has completed certifications such as CS50's Introduction to Python and JavaScript from Harvard University and Applied AI: Practical Implementations. He has worked on projects like Achiever - Quiz App and Face Recognition.

His technical skills include Python, C, HTML, CSS, Django, ReactJS, Tensorflow, and Scikit learn. He has experience as a Web Developer Intern, where he developed TaskMaster using PHP, MySQL, and HTML, implementing CRUD operations. He has also worked as a Python Programmer Intern at CodSoft, where he developed projects like ToDoList, Password Generator, and RockPaperScissorsGame, and performed EDA and implemented ML models.

His personal skills include diligence and being a quick learner.

► How did I get this answer?



Type something...



RESULTS

Build >

Agent preview



You: 02:42 PM

Give some suggestions to improve soft skills



Interview Trainer Agent 02:42 PM

To improve soft skills, consider the following suggestions:

1. **Active Listening:** Pay full attention to the speaker, show that you're listening through non-verbal cues, and provide feedback. This can be improved by practicing mindfulness and focusing on the speaker without interrupting or planning your response.
2. **Communication:** Clear and concise communication is key. Practice articulating your thoughts without unnecessary jargon. Non-verbal communication, such as maintaining eye contact and using gestures, also plays a significant role.
3. **Empathy:** Try to understand things from the perspective of others. This can be developed by practicing perspective-taking and showing genuine interest in others' feelings and viewpoints.
4. **Conflict Resolution:** Learn to handle disagreements constructively. This involves understanding the source of conflict, expressing your viewpoint respectfully, and seeking a mutually beneficial solution.
5. **Adaptability:** Be open to change and flexible in different situations. This can be improved by stepping out of your comfort zone and embracing new challenges.
6. **Teamwork:** Collaborate effectively with others. This involves clear communication, respect for others' ideas, and a willingness to compromise.

Type something...



RESULTS

Deployed AI Agent

The screenshot displays the IBM Watsonx user interface. At the top, a dark navigation bar contains the 'IBM watsonx' logo, an 'Upgrade' button, and user account information for 'Sathvik Palivela's Account' in 'Dallas'. Below this, a breadcrumb trail shows the path: 'Deployment spaces / Interview_Agent / Interview Trainer Agent'. The main section is titled 'Interview Trainer Agent' with status indicators 'Deployed' (green checkmark) and 'Online' (grey pill). Below the title are tabs for 'API reference', 'Test', and 'Preview' (which is active). A 'New chat +' button is located on the right. The chat window shows a message from the 'Interview Trainer Agent' at 02:23 PM: 'Welcome to Interview Trainer Agent' followed by 'I'm your Interview Trainer - I'll help you with Interview Preparation.' Below the text is a diagram of a neural network with nodes and connections, featuring a magnifying glass icon. At the bottom is a text input field with the placeholder 'Type something...' and a send button.

CONCLUSION

- Provides tailored question sets, model answers, and improvement tips based on user profile, experience, and job role.
- Supports both technical and soft skill assessments, ensuring users are well-rounded and prepared for various aspects of the interview.
- Helps users build confidence and sharpen their responses through real-world scenarios, mock interviews, and instant feedback, increasing their chances of success in competitive job markets.

FUTURE SCOPE

- VR/AR-Based Interview Simulations
- AI-Powered Emotion & Tone Analysis
- Gamified Learning & Progress Tracking
- Multilingual & Accent-Adaptive Support
- Integration with Job Platforms
- Integration with ATS

IBM CERTIFICATIONS

Getting Started with Artificial Intelligence



Lab: Retrieval Augmented Generation with LangChain



GITHUB LINK

GitHub Link: <https://github.com/SATHVIK-CONNECT/Interview-Trainer-Agent>



THANK YOU