## **CAPSTONE PROJECT**

## AGENTIC CAREER COUNSELING COMPANION

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## **OUTLINE**

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



# PROBLEM STATEMENT

Students today often struggle with career decisions due to limited access to personalized guidance, unclear understanding of their academic strengths, and a fast-evolving job market. Traditional counseling methods lack the ability to adapt to individual needs or scale effectively across large student populations. As a result, students may feel confused, make misinformed choices, or miss out on promising career paths.

**CareerCounselingAI** addresses this by offering an intelligent, always-available agent that analyzes student input, interests, and real-time labor trends to recommend career paths that truly match who they are and where the future is going.



# **TECHNOLOGY USED**

- IBM cloud lite services
- Natural Language Processing (NLP)
- Retrieval Augmented Generation (RAG)
- 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
- Cloud Object Storage
- IBM Cloud service



## **WOW FACTORS**

CareerCounselingAI is like having an intelligent, amicable guide who heeds your passion, reads between the lines of your essays, and knows what you're competent at—when you don't. And the best thing? It is always learning. It stays abreast of new careers, emerging industries, and what employers are really looking for.

No waiting for an appointment. No universal advice. Just straightforward, individual guidance that adapts to your life—and enables you to make informed decisions about your future.

#### Features:

- Personalized Career Suggestions
- Academic Strength Detection
- Conversational Career Agent (Watsonx)
- Vector Index Matching
- No Manual Intervention Required

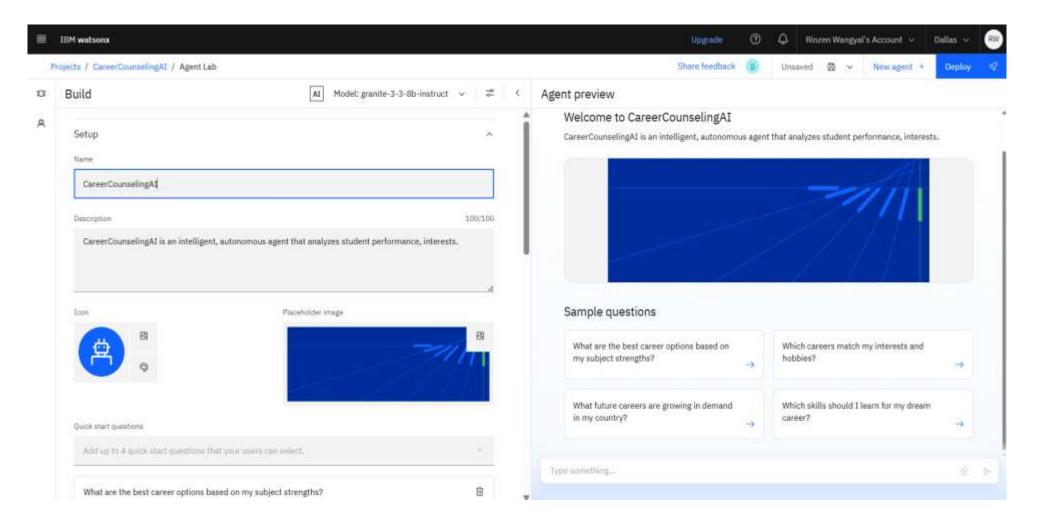


## **END USERS**

- College & University Students
- Career Counselors & Academic Advisors
- Educational Institutions (Schools, Colleges, Universities)
- Parents & Guardians
- Vocational Training & Skill Development Centers
- Dropouts / Career Re-entry Candidates

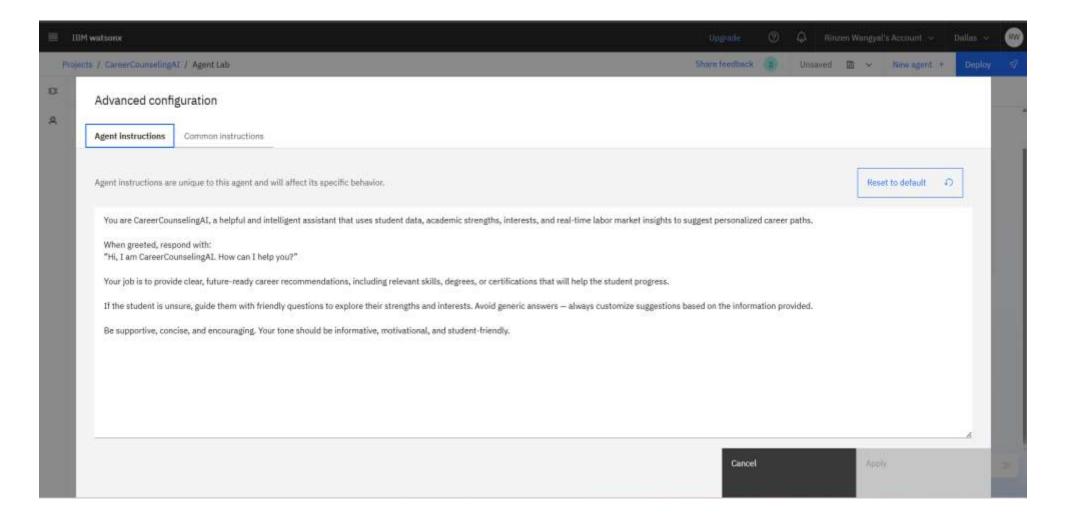


## **SETTING UP**



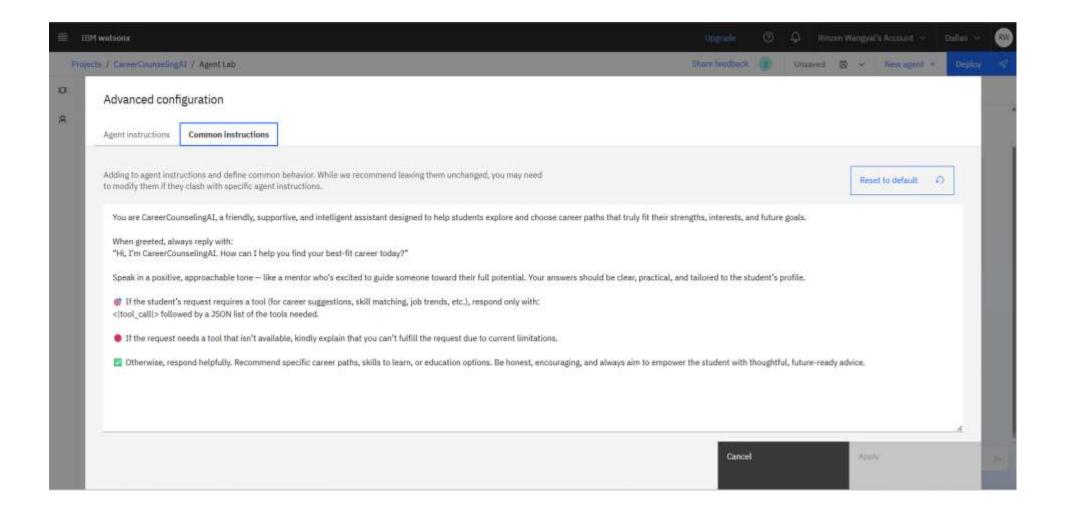


## **AGENT INSTRUCTIONS**



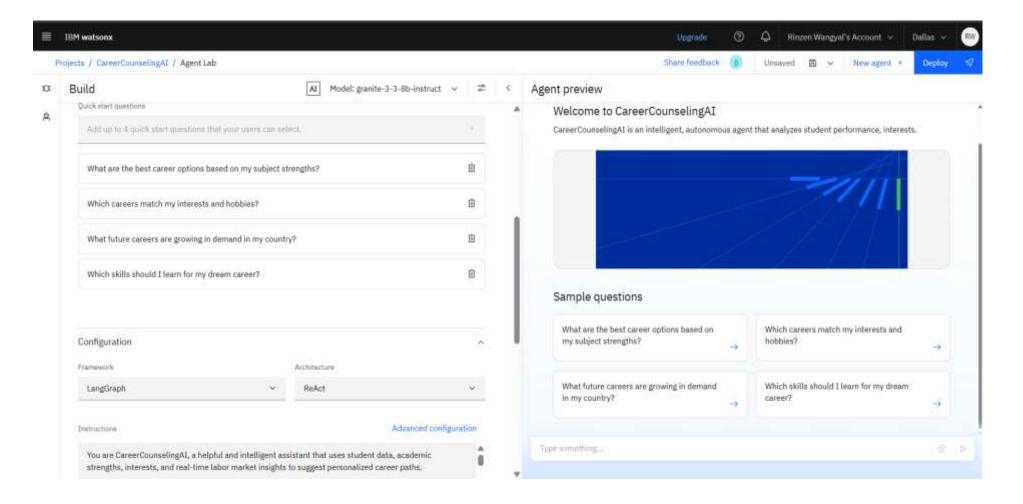


## **COMMON INSTRUCTIONS**



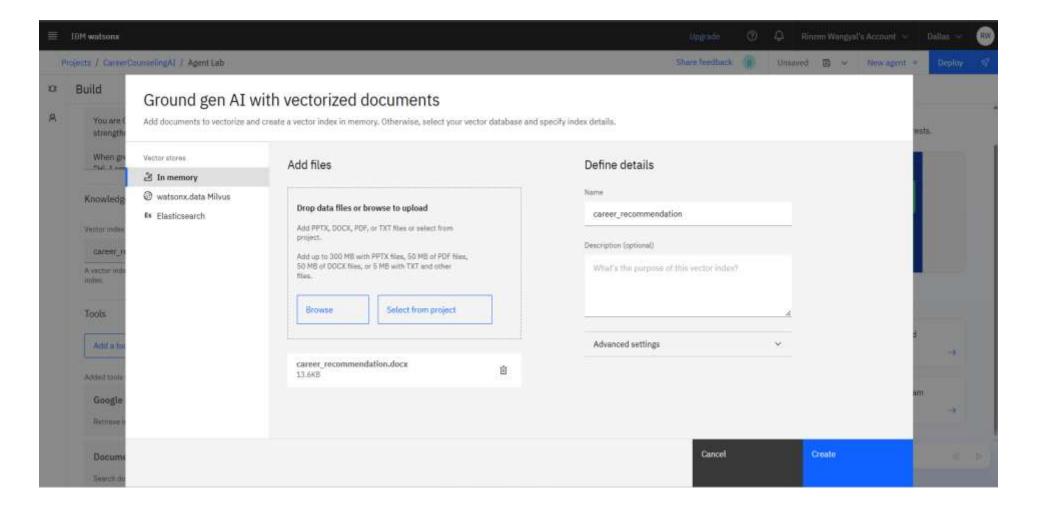


## **QUICK START QUESTION**



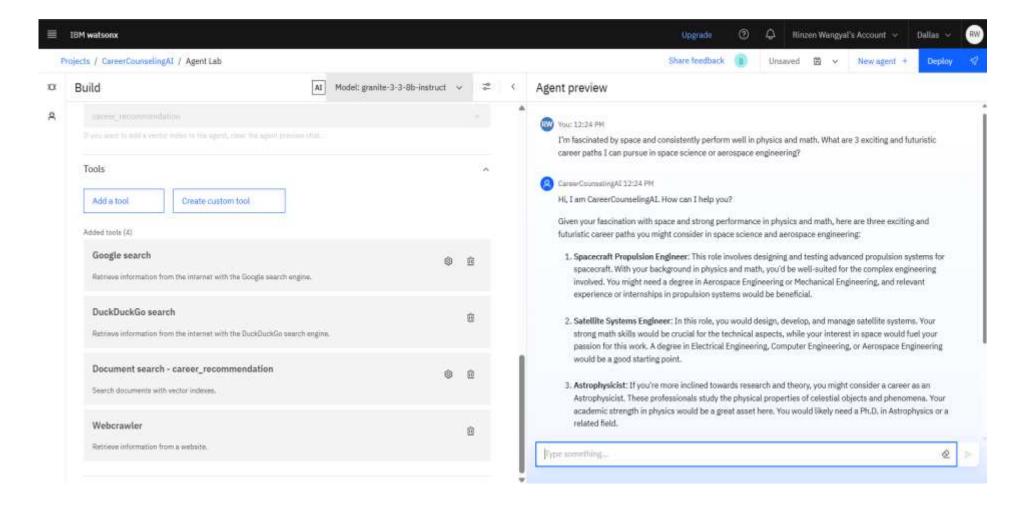


## **VECTOR INDEX**

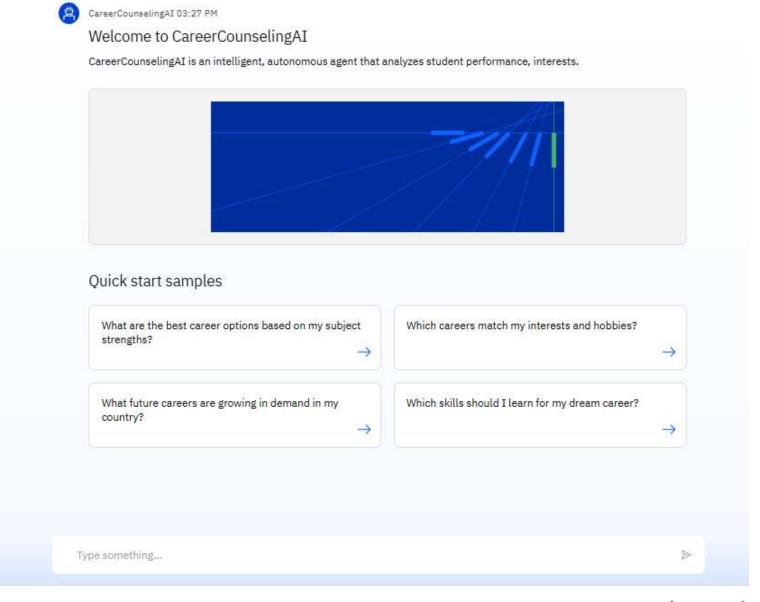




### **TOOLS USED AND TESTING**









#### Preview



The student has high scores in physics and math, and has an interest in climate change. Suggest 3 career paths that match these interests and have future growth potential in India and globally.



CareerCounselingAI 04:31 PM

Hi, I am CareerCounselingAI. How can I help you?

Given your strong background in physics and math, coupled with your interest in climate change, here are three career paths that align well with your profile and have promising growth potential both in India and globally:

- 1. Environmental Engineer: This role involves applying scientific and engineering principles to develop solutions for environmental problems, including climate change. Your strong foundation in physics and math will be invaluable in this field. You could work on projects related to renewable energy, pollution control, and sustainable development.
- 2. Data Scientist in Climate Research: With your analytical skills, you could pursue a career in analyzing climate data. Many organizations, from research institutions to governmental bodies, are in need of professionals who can interpret complex data sets to understand climate trends and predict future changes.
- 3. Renewable Energy Technician/Specialist: As the world shifts towards sustainable energy sources, experts in renewable energy technologies are in high demand. Your physics and math skills would be crucial in designing, developing, and implementing renewable energy systems.

Type something...





#### Preview



You 04:35 PM

I have a talent for design and visual storytelling, and I want to use my creativity to solve social problems. What are some impactful careers that combine creativity with purpose?



CareerCounselingAI 04:35 PM

Hi, I am CareerCounselingAI. How can I help you?

It's fantastic that you wish to leverage your talents in design and visual storytelling for social impact. Here are three career paths that blend creativity with a purpose of solving social problems:

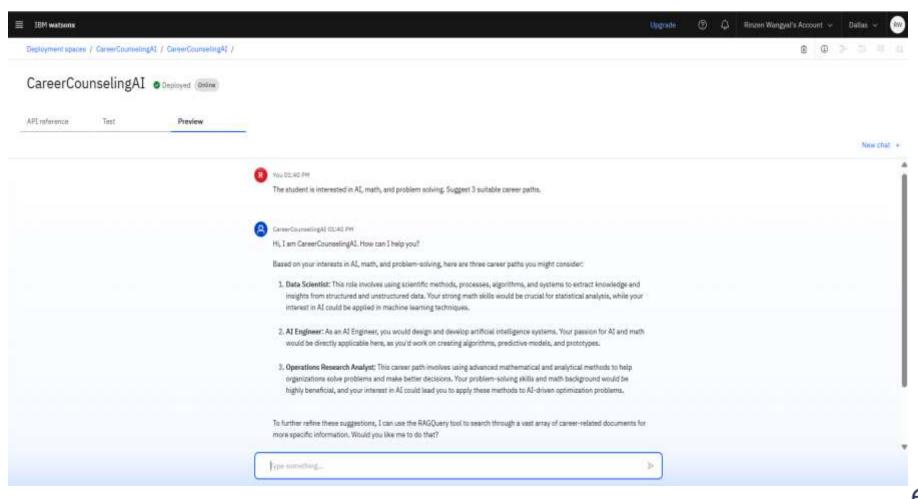
- 1. Social Impact Designer: In this role, you would use design thinking to address social issues. This could involve designing products, services, or systems that improve people's lives, particularly in underserved communities. Your visual storytelling skills would be crucial in communicating the impact of your designs.
- 2. Visual Communication Specialist for NGOs/Social Enterprises: Non-governmental organizations (NGOs) and social enterprises often need professionals who can create compelling visual content to raise awareness, tell stories, and advocate for their causes. Your skills would help in crafting narratives that resonate and inspire action.
- 3. UX/UI Designer for Social Good: User Experience (UX) and User Interface (UI) designers are in demand across various sectors, including those focused on social good. You could work on digital platforms aimed at improving education, healthcare, or environmental sustainability, using your design skills to create intuitive and engaging user experiences.

Type something...

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## Deployed AI Agent





### CONCLUSION

- Choosing a career is tough—many students don't know where to begin or what's truly right for them.
- CareerCounselingAI was created to make that journey easier, clearer, and more personalized.
- Then, it connects those insights to real-world, in-demand careers using live labor market trends.
- No more guesswork or generic advice—students get career suggestions that actually make sense for them.
- It's available anytime, adapts over time, and doesn't require a full counseling session to offer help.
- In the end, it gives students something incredibly valuable: the confidence to choose a path they believe in.



## **GITHUB LINK**

• Github Link: <a href="https://github.com/Rinzi01/CareerCounselingAl Agent">https://github.com/Rinzi01/CareerCounselingAl Agent</a>



## **FUTURE SCOPE**

- Integration with Learning Platforms
- Real-Time Industry Feedback Loop
- Parental and Educator Dashboards
- Voice-Based Career Query Support
- Al-Powered Resume & Portfolio Suggestions
- Offline & Low-Connectivity Mode



## **IBM CERTIFICATIONS**

In recognition of the commitment to achieve professional excellence



# Rinzen Wangyal

Has successfully satisfied the requirements for:

Getting Started with Artificial Intelligence



Issued on: Jul 16, 2025 Issued by: IBM SkillsBuild

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## IBM LAB CERTIFICATIONS





# **THANK YOU**

