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# IBM PROJECT

## FACULTY DIGITAL PROFILE BUILDER

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TECHNOLOGY - INFORMATION TECHNOLOGY**

# OUTLINE

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

# PROBLEM STATEMENT

30. Faculty members across higher education institutions are often required to maintain comprehensive academic profiles for accreditation (e.g., NAAC, NBA), research collaboration, promotions, and visibility. However, manually compiling, updating, and formatting data related to qualifications, publications, FDPs, patents, grants, and achievements

is time-consuming, error-prone, and inconsistent.

Moreover, most institutions lack a standardized and intelligent system to generate and update

faculty profiles dynamically from scattered sources like CVs, research repositories, certificates, and spreadsheets.

There is a need for a smart, automated, and user-friendly solution that can create and maintain rich, accurate digital profiles for faculty with minimal manual effort.

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# TECHNOLOGY USED

IBM cloud lite services

Natural Language Processing (NLP)

Retrieval Augmented Generation (RAG)

IBM Granite model

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# 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 will significantly reduce the manual workload involved in maintaining academic profiles, improve the accuracy and standardization of faculty data, and streamline the accreditation and promotion processes in educational institutions. It will empower faculty members to effortlessly manage their achievements while ensuring institutional data remains updated and centralized.

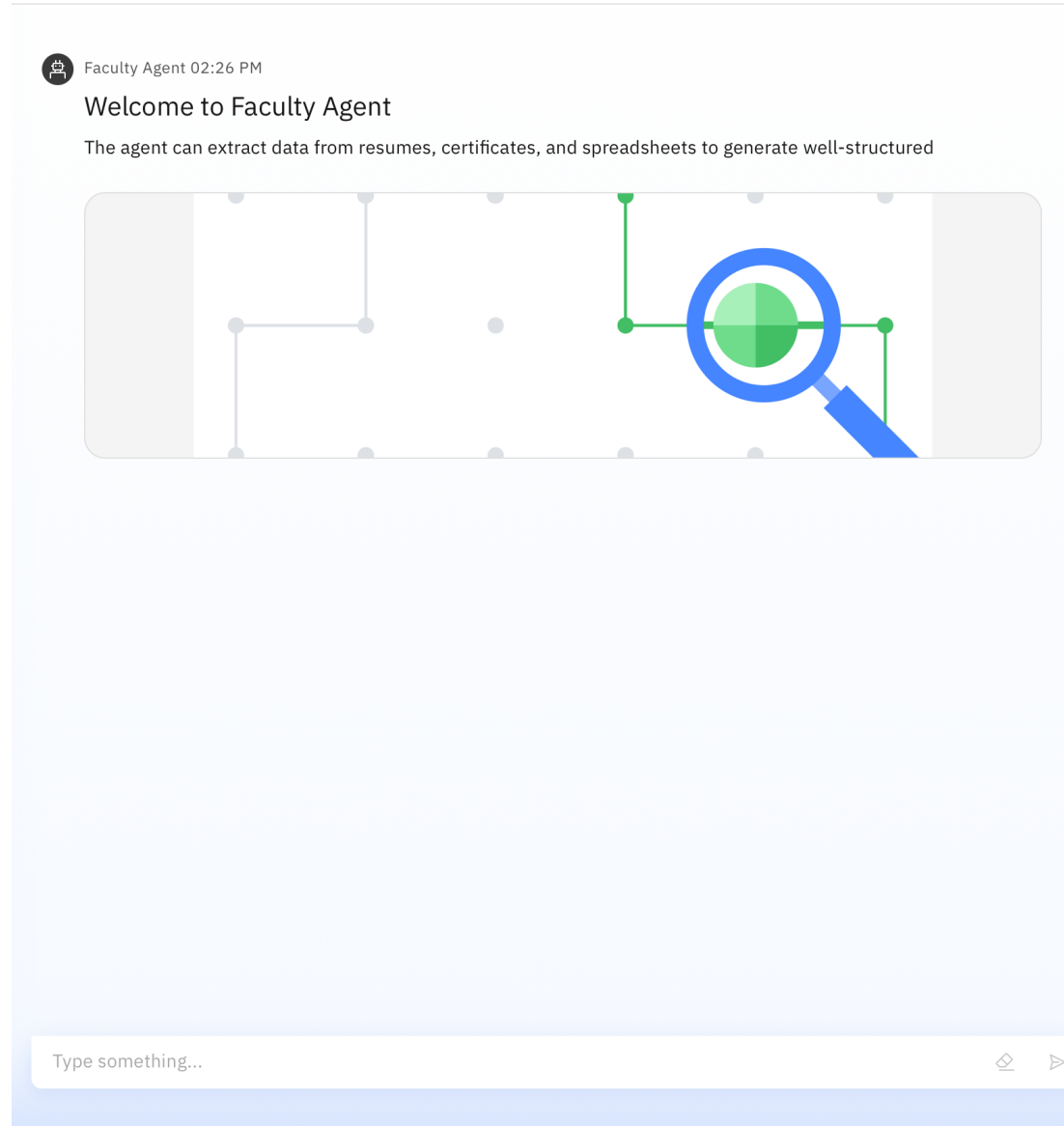
## Unique features:

- Semantic extraction from documents like CVs, certificates, and spreadsheets
- Auto-generation and formatting of academic profiles (publications, patents, qualifications, etc.)
- RAG-based summarization using IBM Watsonx.ai Granite models
- Smart section-wise editing and real-time content suggestions
- Export-ready profiles in formats suitable for NAAC/NBA accreditation
- Profile updating engine triggered by new document uploads
- Institution-wide analytics on faculty achievements and research activities

## END USERS

- **Faculty Members** across Higher Education Institutions
- **Department Heads (HODs)** and **Academic Administrators**
- **Accreditation Committees** (NAAC, NBA, etc.)
- **Research Coordinators** and **Publication Cell Officers**
- **University IT and ERP Teams**
- **Promotion and HR Evaluation Panels**
- **Institutional Data Management Teams**
- **Educational Consultants and Auditors**

# RESULTS





# RESULTS



Faculty Agent 03:34 PM

Based on the search results, it appears that there are various AI agents and personal assistants available, each with their own unique features and capabilities. Some examples include:

- Microsoft Copilot Studio, which allows users to create custom AI assistants and virtual agents
- OpenAI's agents, which aim to replace senior staff and can already effectively "replace" senior engineers
- Salesforce's Agentforce, which is an AI agent platform that can help with sales and customer service
- ServiceNow's AI Agents, which can deliver value and unlock productivity at scale
- Navigate360, which is a CRM for higher education that includes AI agents to help with campaigns and staff knowledge

It's worth noting that the search results also include some general information about AI agents and their potential uses, such as in education and customer service.

► **How did I get this answer?**



You: 03:35 PM

How many FDPs did the faculty attend in 2023



Faculty Agent 03:35 PM

The faculty attended at least 5 FDPs in 2023. The specific FDPs attended by the faculty include:

- Streamlining the Process of Assessment of Faculty Development Programs
- Recent Trends in VLSI Design
- Advanced Faculty Development Program on "Large Language models in Artificial Intelligence"
- Pedagogy and Research Methods by IIM, Ahmedabad
- Hands-On Microteaching in the Medical Field

Note: The exact number of FDPs attended by the faculty in 2023 is not specified in the search results.

► **How did I get this answer?**



# RESULTS

Agent Lab (beta) — Docs | IBM watsonx

Deployments | IBM watsonx

Faculty Agent — Faculty\_Agent | IBM watsonx

Deployments | IBM watsonx

IBM watsonx

Upgrade ? 🔔

Sivakumar Balakrishnan's A... ▾

Dallas ▾

SB

Deployments

1 space

New deployment space +

Activity

Spaces

Filter by: All spaces ▾ 🔍 Which deployment space are you looking for?

Name	Last modified ▾	Your role	Collaborators	Tags	Type	Online deployments	Jobs	
Faculty_Agent	Aug 3, 2025 at 3:58 PM	Admin	SB		Production	0	0	⋮

# RESULTS

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Agent Lab (beta) — Docs | IBM watsonx

Deployments | IBM watsonx

Faculty\_Agent — Spaces | IBM watsonx

Faculty\_Agent — Spaces | IBM watsonx

Settings | IBM watsonx

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Upgrade

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Deployment spaces

Faculty\_Agent

Overview

Assets

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Search

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## CONCLUSION

- The agent can auto-generate faculty profiles, summarize academic achievements, and dynamically organize data for accreditation and promotion reports.
- It saves time by automating repetitive tasks like document parsing, data entry, and formatting.
- The Faculty Profile Builder enhances efficiency, accuracy, and consistency in academic record-keeping across institutions.

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# FUTURE SCOPE

- Multilingual Research Support
- Voice-Activated Research Assistant
- Real-Time Collaboration Features
- Research Gap and Novel Topic Identification
- Integration with Publishing Platforms
- AI-Assisted Paper Drafting

# IBM CERTIFICATIONS

In recognition of the commitment to achieve  
professional excellence



**SIVAKUMAR B**

Has successfully satisfied the requirements for:

**Getting Started with Artificial Intelligence**



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**THANK YOU**