The 10 Fastest-Growing AI Workplace Skills for 2025

Udemy business

The growth of generative AI adoption is nothing short of astonishing.

A full two-thirds of organizations — 65% — are using AI regularly, almost double the percentage of those using it just 10 months before. Generative AI (GenAI) is a subset of artificial intelligence that uses inputs from large language models to create text, images, videos, and other outputs based on user prompts. Driving its rapid growth is the relative ease of implementation, the wide range of possible applications across industries and roles, and the considerable outcomes it promises. In marketing functions, for example, GenAI can be used to identify and prioritize sales leads. In IT, GenAI can automate time-consuming help desk queries.

Despite its growth, GenAI technology is already at a pivotal point. As the luster of early adoption wears off, companies are now grappling with how to scale GenAI usage and analyze its overall ROI. GenAI has great promise to improve productivity and buoy innovation — if companies can figure out how to best use it. A transformation of this magnitude requires strong leaders to guide its strategy, planning, and upskilling or reskilling of employees.

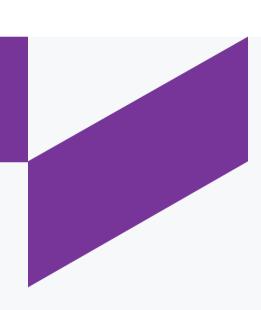Generative AI is not the only focus in the world of artificial intelligence. Total global data is expected to grow to nearly 200 zettabytes by 2025, and artificial intelligence is an important part of making sense of all that data. As seen in our list of fastest-growing AI skills below, topics like machine learning, deep learning, and model deployment are popular due to their applications in helping companies extract insights from massive amounts of stored data. The LangChain framework is also a rising topic of note for Udemy Business learners. LangChain, allows the integration of large language models (LLMs) and natural language processing (NLP) into applications.

The 10 fastest-growing AI skills

1 ChatGPT & Generative AI

2 Prompt engineering

3 LangChain

4 Machine learning

5 Deep learning

6 OpenAI API

7 Model deployment & MLOps

8 GitHub Copilot

9 Natural language processing (NLP)

10 Microsoft Copilot

2X McKinsey

as many organizations are using GenAI regularly compared to a year ago

> "GenAI has become instrumental in driving efficiency and effectiveness. From optimizing learning support through personalized recommendations to curating content tailored to individual needs, AI empowers our workforce to thrive.

Jim Hemgen, Principal and Director of Talent Development at Booz Allen

72% McKinsey

of surveyed companies adopted AI in 2024, up from a 50% adoption rate in the prior year.

> "The value from any Generative AI initiative won't be fully realized if it sits apart. As with other technologies, it will only reach its potential when it is embedded in everyday tasks. Many organizations are already employing enterprise tools enhanced with this emerging technology resource to try and make this happen.

Deloitte

Download the 2025 Global Learning & Skills Trends Report for more insights on how organizations are adopting generative AI technologies to upskill employees quickly and efficiently.

AI topics are ranked by total consumption, or the total increase in consumption hours of the topic in the post-period (July 1, 2023 to June 30, 2024) compared to the pre-period (July 1, 2022 to June 30, 2023), measured in absolute numbers.