Indeed's AI at Work Report How GenAI will impact jobs and the skills needed to perform them

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Generative artificial intelligence (GenAl) is poised to influence virtually every job on the planet. But which jobs will be most affected and why? To get the answers, Indeed's economic research team - Hiring Lab - analyzed Indeed's universe of more than 55 million job postings and more than 2,600 skills to identify the exposure level (low/moderate/high) GenAl will have on jobs and the skills required to perform them.

RESEARCH SUMMARY

- Virtually 100% of jobs on Indeed face some potential exposure to GenAI-driven change. But the level of exposure varies, with only 19.8% of jobs facing the highest level of potential exposure, while more than a third (34.6%) face the lowest potential exposure.
- Although GenAl shows proficiency in doing some of a job's required skills, it remains unable to perform others. Though many jobs will change because of GenAl, they are unlikely to disappear altogether.
- As the labor market continues to adjust to the rise of remote work, the odds are higher that a job can be done remotely and the greater its potential exposure is to GenAI.
- GenAl is more likely to remain only decent (at best) at performing most tasks, rather than truly masterful, and currently does more skills poorly than it does well.

Less than 20% of jobs face a high potential exposure to GenAI

Job postings on Indeed by GenAl exposure share, United States, Aug '22 - Jul '23



Source: Indeed. High: GenAl can perform at least 80% of skills at a 'good' or 'excellent' level. Moderate: Between 50% and less than 80% of skills. Low: Less than 50% of skills.

Occupational findings

Unlike earlier advances in robotics and computing that largely impacted and replaced manual labor, knowledge workers are much more likely to be impacted by this evolution in GenAl technology.

- Software development jobs have the highest potential exposure to GenAl augmentation. GenAl is "good" or "excellent" at 95% of the skills in software development postings, which includes technology and business operations skills.
- Driving jobs (like truck and taxi drivers) have the least potential impact by GenAI. GenAI is "good" or "excellent" at only 29% of skills in driving jobs. It's proficient at language and communication skills, but GenAI is "poor" at vehicle operation skills.
- Some of the most common jobs posted on Indeed (caregiver, cook, registered nurse, etc.) are among the least exposed to GenAl.

Skill set limitations

Jobs are essentially a collection of skills, combined to create a whole job posting. While GenAI is able to do some of these skills well, there are others it isn't capable of performing. Indeed identified two indicators that can predict proficiency. GenAI is poor at doing skills that:

- 1.) Require human intuition or advanced reasoning,
- 2.) Require manual dexterity or physical presence, determined, in part, by using Indeed Hiring Lab's remote/hybrid job posting tracker.

OUR METHOD

- Indeed's skill taxonomy includes more than 2,600 skills grouped into 48 skill families which are present in more than 55 million Indeed job postings published in the U.S. between July 2022 and August 2023—representing a large majority of total U.S. job postings over time.
- In an extensive process, we identified the exposure level (low/ moderate/high) GenAI will have on those skill families.
- Those skill families were then mapped back to Indeed job postings to determine which roles were most and least exposed to GenAl change.
- If GenAl was considered "good or excellent" at 80% or more of the skills listed in the job description, that job was considered "highly exposed." Moderate exposure: Between 50% and less than 80% of skills, and low: Less than 50% of the skills.

Assessing GenAl's Proficiency in Skills

Evaluation of skills in Indeed job postings, United States, Aug '22 - Jul '23



Source: Indeed.

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