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2025 AI Workforce Transformation Highlights

Karat's latest survey of 400 senior engineering leaders -including more than **300 SVPs and CTOs-** across the **U.S., India, and China** explores how AI is reshaping software development. We asked leaders about the impact AI is having on productivity, how organizations are evolving to maximize gains, and the gaps that exist for engineering leaders seeking to transform their workforce.

AI is amplifying the gap between strong and weak engineers

AI isn't just raising productivity — it's amplifying talent differences. The strongest engineers produce outsized value as the gap between high and low performers grows.

AI amplifies the output of engineers with strong underlying skills who know how to leverage it. The challenge is identifying the engineers who possess both these foundational skills and the ability to apply AI on top of them. And because of the growing value gap, the pressure to make the right talent decisions has never been higher.

The New Productivity Divide

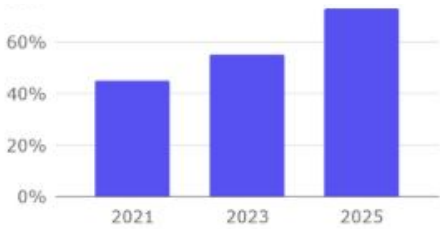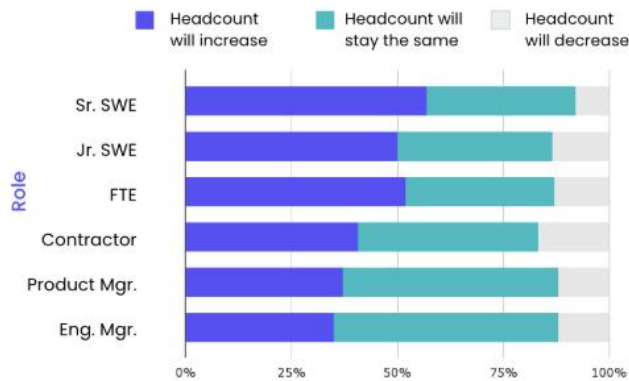| Tech leaders estimate a **34%** productivity increase from AI	**73%** Say strong engineers are now worth at least 3× their total compensation	**59%** Say weak engineers deliver net zero or negative value in the AI era

Insight

AI isn't a great equalizer. It's a multiplier. Strong engineers using AI are creating a disproportionate amount of value. Organizations that identify, reward, and replicate the success of these engineers will capture the most value from the **new human + AI frontier.**

A strong engineer is worth at least 3x their total comp

The death of software roles has been greatly exaggerated

85% of leaders expect headcounts to increase or remain flat over the next 3 years. This is true across roles and levels.

What's more, hiring remains the primary vehicle for adding AI skills, with talent acquisition topping upskilling as the primary strategy for maximizing the value organizations get out of AI.

Talent strategies to maximize the ROI from AI

Hiring new FTEs	**68%**
Upskilling existing engineers	62%
Establishing AI centers of excellence	58%

Yet, despite the strategic focus on hiring and the need to maintain or grow headcounts, most orgs aren't ready to hire engineers with the skills they need.

How will headcount change over the next 3 years?

Most organizations (62%) don't allow AI use in interviews, yet leaders estimate that over half of candidates use it. Meanwhile, just 33% of organizations ranked "updating technical assessments" as a top priority. Even fewer, 27%, are prioritizing training interviewers to measure AI skills.

As a result, confidence in hiring is eroding in the U.S.

Increased difficulty assessing skills

2024	19%
2025	36%

% US leaders who say it is difficult to accurately assess skills needed to capitalize on new developments in AI

Decreased hiring confidence

2024	67%
2025	47%

% US leaders who are very confident that qualified candidates are the ones getting job offers

AI to blame

71%

% leaders who say AI is making it harder to assess technical skills

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Companies that allow candidates to use AI in human-conducted interviews anticipate better code quality and faster innovation cycles.

Human + AI: 33% of organizations in the U.S. use live interviews and allow candidates to use AI tools in a way that mirrors day-to-day work

Human-only: 45% of organizations in the U.S. measure technical skills using live interviews where AI use is prohibited
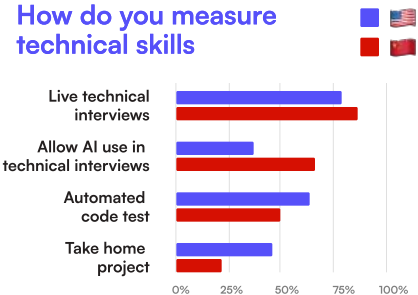
Non-human: 22% of organizations in the U.S. use a combination of online code tests and take home projects that do not include human interviewers

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Over the next 3 years...

- **63%** of companies that use human + AI interviews expect coding errors to decrease
- **45%** of companies that use human-only interviews
- **21%** of companies who use non-human assessments

- **49%** of companies that use human + AI interviews expect the time it takes to bring new products/features to market to decrease
- **31%** of companies that use human-only interviews
- **20%** of companies who use non-human assessments

- **76%** of companies that use human + AI interviews expect the number of products and features they release to increase
- **57%** of companies that use human-only interviews
- **48%** of companies who use non-human assessments

Chinese organizations are adopting AI, reinvesting productivity gains, and leaning into human + AI assessments at higher rates than in the U.S.

AI adoption
% who say they are implementing AI tools at scale

🇺🇸 31% | 🇨🇳 58%

AI-readiness
% who say they are very confident in their employees readiness to use AI

🇺🇸 47% | 🇨🇳 67%

Cost cutting vs. investing
% who say they are feeling pressure to cut costs due to AI gains

🇺🇸 73% | 🇨🇳 41%

How do you measure technical skills

(Bar chart comparing US 🇺🇸 and China 🇨🇳)
- Live technical interviews
- Allow AI use in technical interviews
- Automated code test
- Take home project

(0% – 25% – 50% – 75% – 100%)

Organizations in China are outpacing the US in terms of AI adoption and AI readiness, while also taking a longer-term approach to reinvesting AI productivity gains and developing AI-ready talent.

China's talent strategies present a blueprint for how to assess the skills needed for an AI ready workforce. Chinese companies are almost twice as likely to allow the use of AI in interviews, and are turning away from assessment formats like take home projects and automated code tests that are seeing diminished hiring signal due to AI.

To learn more about how to make the best talent human + AI decisions for your NextGen workforce, visit karat.com

Whether it's developing software or making the right talent decisions, Human + AI isn't a static configuration. It's a philosophy about how to navigate technological change. The future isn't human OR AI. It's the two working together.