



Unveiling Emerging Tech Talent Trends in 2024 and beyond














A close-up photograph of a woman with dark hair, looking upwards. Her face is partially illuminated by a strong red light, creating a dramatic effect. She is wearing large hoop earrings. The background is a solid purple color.

**At hackajob,
we exist to help**

**people and
businesses to get
the best out of
technology and
each other.**

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Foreword

“Tech hiring is experiencing a seismic shift. Tech hiring has never stood still, and 2023 has been no different.”

The demand for tech talent has surged despite the economy, and companies are not only competing for the same skill sets but are also seeking tech talent who possess a blend of technical expertise and soft skills. As technology becomes deeply integrated into every sector, hiring managers are seeking individuals who can adapt, collaborate, and lead in a rapidly changing digital landscape. The emphasis is no longer solely on what candidates know, but also on how they learn, communicate, and fit within the broader organisational culture.

This report offers insights into the current state of tech hiring and emerging trends that promise to shape the future of the industry. Emerging trends in tech hiring highlight the importance of diversity, equity, and inclusion as an increasing necessity for innovation and success. As more people enter – and stay in – the tech workforce, organisations will need to embrace new practices to attract diverse talent.

Another trend that is changing rapidly is the rise of remote and hybrid work arrangements vs working onsite. The pandemic accelerated this shift, but it is likely to remain a prominent feature of the tech hiring landscape.

As geographic boundaries blur, companies are redefining their talent pools and leveraging technology to support remote recruitment and onboarding. As we delve into the chapters ahead, we will unpack these trends, share best practices, and navigate the complexities of tech recruitment.



Mark Chaffey
Co-Founder & CEO
hackajob



Our Mission

At hackajob, we created our platform to enable the world to build the future, today. It is why we believe dreaming big, yet searching small, is the secret to a successful job search. But how great people and great organisations find each other is broken.

It is opaque, biased and plagued by a terrible experience. And as the demand for technical talent continues to rise, not enough is being done to create the talent of tomorrow. We want to change this with radical transparency, the best-in-class service and a long-term approach to talent, all powered by technology.

We see a world where technical talent have an incredible experience developing their careers and finding the right company to unleash their full potential, whilst employers are able to attract, nurture and retain the talent they need to thrive in the technical economy.

Our mission is to make the hiring process fairer, faster and based on skills rather than backgrounds, so that people can get the job they deserve and earn what they're worth.

Having a community of over half a million technical people on our platform is no mean feat, and we like to think we know what we're talking about. In fact, we've been paying attention to the state of the industry, and have followed the peaks and troughs of tech hiring to understand, and predict, emerging trends.



The power of
people building.

Introduction

In today's digital age, the world of work is undergoing a profound transformation driven by emerging talent, particularly within tech. For organisations to thrive financially in this ever-evolving landscape, they themselves must not only harness the potential of cutting-edge technologies, but also assemble teams equipped with the right skills and talents to navigate these changes. The task of identifying, attracting, and retaining top talent in emerging tech fields has never been more critical.

The current state of the tech industry

Employment has seen much turbulence over the past few years. From a pandemic that impacted the world to The Great Resignation,¹ Quiet Quitting² and all that's in between, the tech industry seemed to many as almost untouchable with organisations increasing their tech hiring over the years.

Then, in 2022/2023, amidst economic uncertainty in multiple parts of the globe, the tech jobs bubble burst and the industry witnessed a wave of layoffs that sent ripples through the sector. The reasons behind these layoffs were multifaceted, including the ongoing impact of the pandemic, shifting market dynamics, and evolving technological landscapes, leaving many tech workers questioning whether or not the industry was stable and what happens next.

As organisations grappled with the need to streamline their operations, optimise resources, and adapt to the changing demands of an increasingly competitive market, tech professionals similarly struggled with aligning their work expectations with a changing environment. Thus, this tumultuous period highlighted the importance of adaptability and upskilling in the tech industry, as both employees and organisations sought to navigate the uncertainties and seize emerging opportunities in this sector.



1. <https://hbr.org/2022/03/the-great-resignation-didnt-start-with-the-pandemic>

2. <https://hbr.org/2022/09/when-quiet-quitting-is-worse-than-the-real-thing>

It's not all doom and gloom

Whilst the first half of 2023 saw a change in tech hiring that to some was inevitable, and to others, unpredictable, Big Tech has since been recovering, with companies such as Apple, Microsoft, Amazon and Tesla seeing a resurgence over the latter half of the year.³

As a result, we have seen a shift in tech hiring trends which we have documented in this report. Drawing from our platform's database of technical candidates, and with thousands of technical jobs created in just 12 months, we've analysed the state of the tech hiring landscape, looking to the past, present and future to accurately predict what is to come for 2024.

In this report, we take a deep dive into tech hiring and share insights from the trends that are emerging, fading, and staying strong. From shifts in ways of working, career progression and diversity, we shed light on what your organisation can expect from the coming year. Below are some of our key findings.



3. <https://www.schroders.com/en/global/individual/insights/big-tech-turnaround-what-s-behind-the-recovery/>

Key Discoveries

State of the industry

- »» Only 13% of tech jobs are for junior roles, creating a more competitive field
- »» We'll start to see more competition for senior tech roles, with 1/3 of tech talent falling into this category
- »» Javascript remains the most desired programming language by employers followed by skills in Microsoft Azure and Docker

Money makes the world go round

- »» The average junior salary has dropped by £10,000 in the past 5 years – internal mobility will now be of utmost importance for many engineers
- »» Highest paid skills for 2024 include: Test Driven Development (TDD), Kafka, Scala and Microservices
- »» In just five years, AI, Rust, Machine Learning and Site Reliability Engineers have become the highest paid roles

Upcoming tech talent hubs

- »» For the first time since pre-pandemic, there are now more onsite roles than remote roles being created
- »» A new era of experienced tech talent is emerging in the middle-belt of the UK
- »» Upcoming tech hiring hubs will be found in Nottingham, Coventry, Sheffield, Cambridge and Liverpool

DE&I is improving...slowly

- » 91% of tech talent identify as neurotypical, but within the 9% that are neurodivergent, the majority (40%) had ADHD, followed by Dyslexia, Autism and Tourettes
- » As company culture becomes increasingly important to candidates, organisations will need to do more to support employees, including personalised career development, organisational frameworks and ERGs

To the future

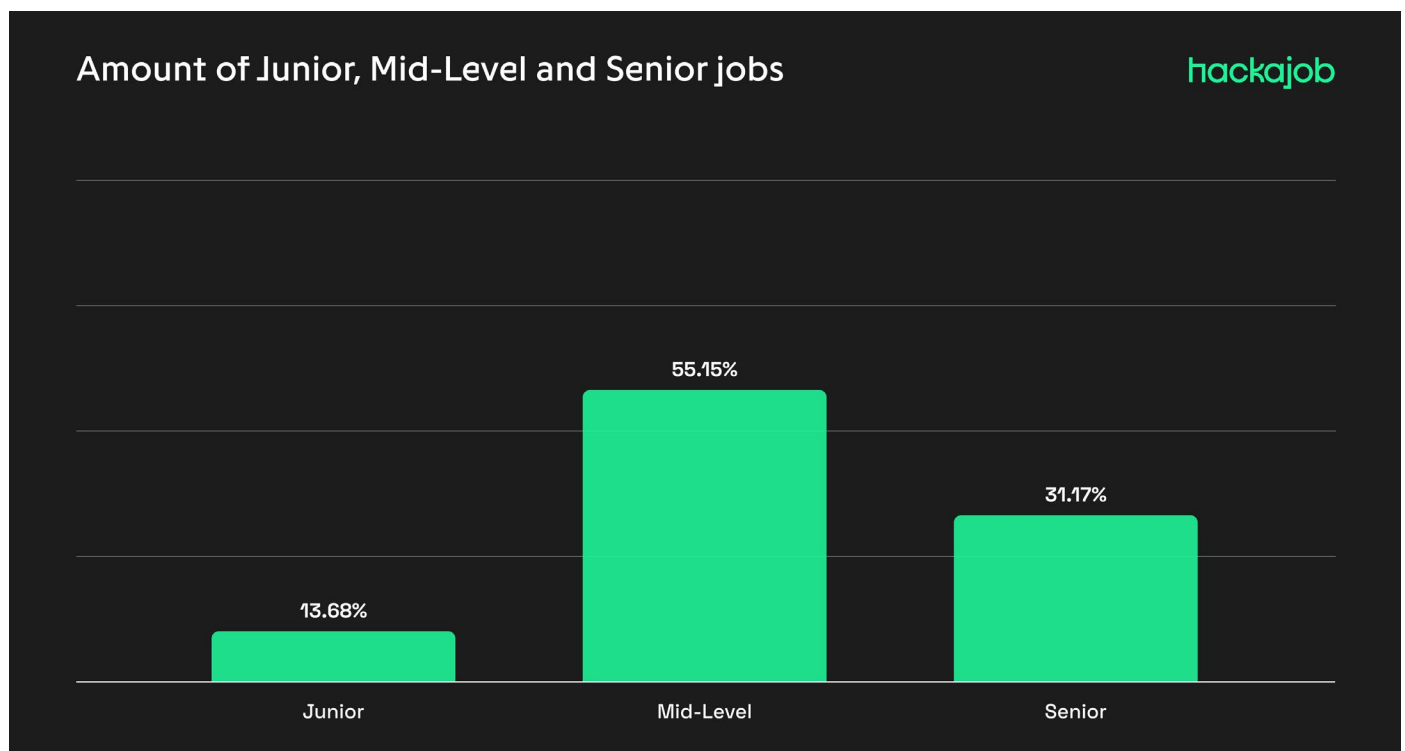
- » Almost 1/10th of roles now list AI as a desired skill
- » There is a rise in the number of Principal and Staff engineers
- » Organisations and employees are carving out more hands-on roles



Where are all the tech roles?

A far cry from the stereotypical image of tech being solely for the younger tech-savvy generation, from the data on the hackajob platform, we're seeing a huge rise in the amount of tech vacancies for mid-level employees, with senior tech roles following not too far behind.

Junior vs Mid-Level vs Senior



In the tech industry, the distribution of job seniority levels reveals an interesting trend. A significant portion, **more than 55%**, of all tech job opportunities are tailored for mid-level employees, indicating a strong demand for individuals with a few years of experience.

Furthermore, senior tech professionals continue to be highly sought after, with approximately **31% of job openings specifically targeting this expertise**.

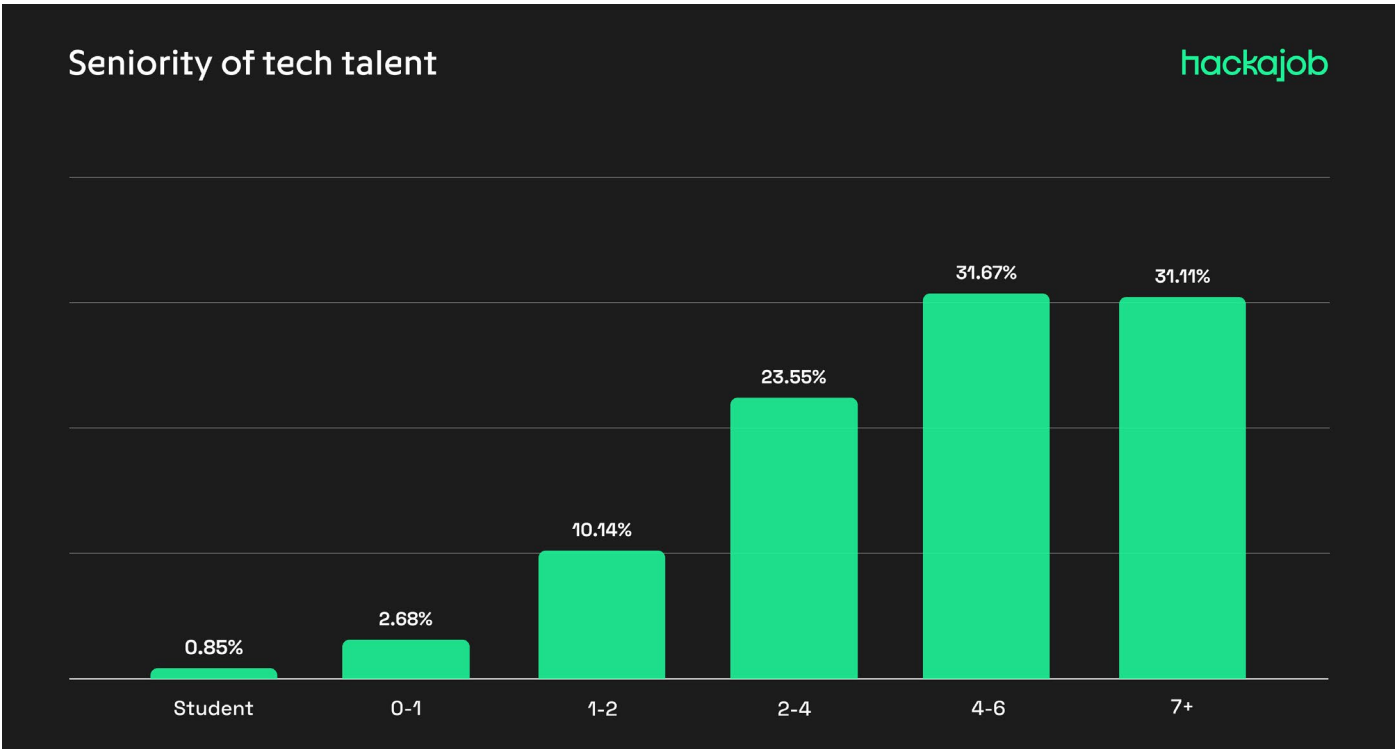
This data underscores the technology sector, highlighting the opportunities available for both seasoned tech talent and those looking to make their mark as mid-level professionals.

More senior tech talent bring a wealth of experience and expertise to the table. Their deep knowledge of complex systems, problem-solving skills, and a proven track record of successful projects makes them invaluable assets to organisations.

Moreover, as technology becomes increasingly integral to business operations across industries, these individuals can provide mentorship and guidance to junior team members, ensuring knowledge transfer and skill development within an organisation which is crucial to retaining the next generation of talent.

As such, the need for senior tech talent is not only about filling positions but also about securing the future success and growth of tech-based enterprises.

What could be causing fewer junior roles?

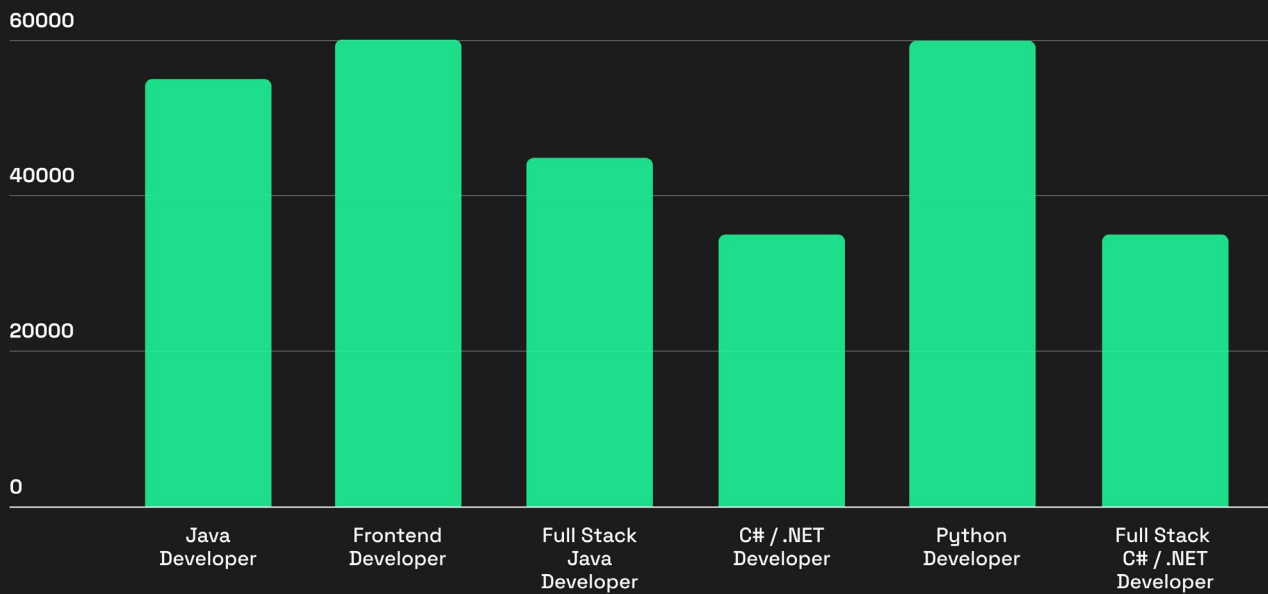


In some cases, the threshold to gain a junior role in the tech industry has become higher. With more people breaking into tech, junior roles have become more competitive whilst salaries haven't always risen alongside. With more routes into tech than ever before, organisations are expecting more skills from junior candidates.

Some ways that junior tech talent can stand out from other potential candidates, is focusing on improving their individual skillset. For example, enhancing their portfolio work via hackathons, personal projects and even helping with non-for-profit tasks.

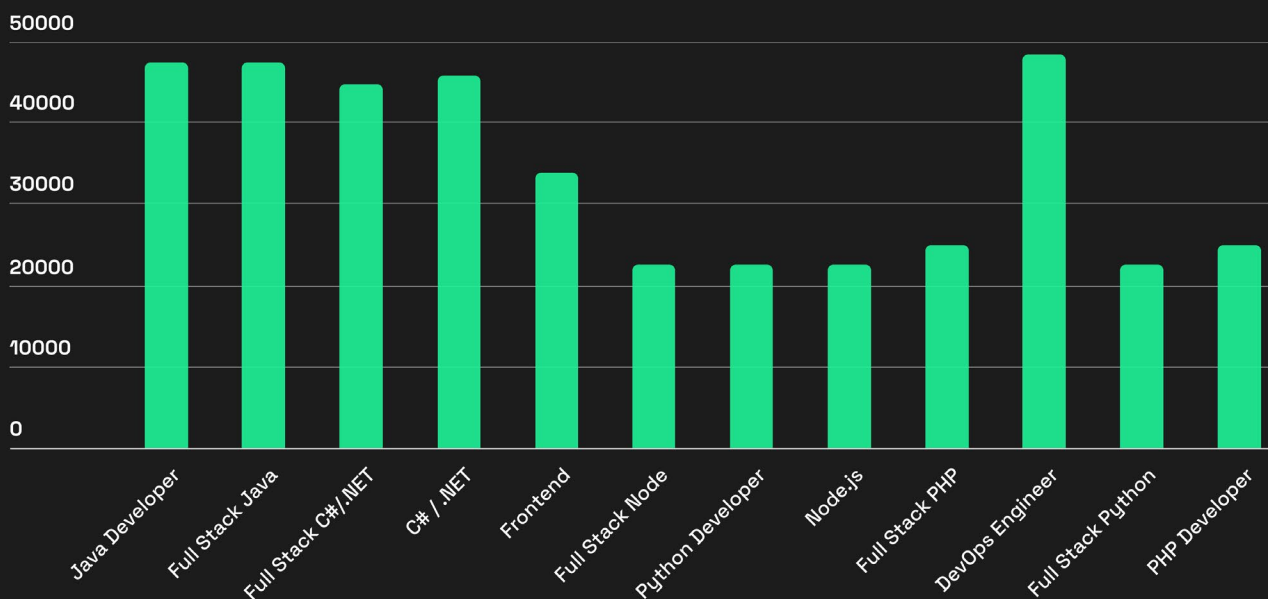
Average salary for Junior Developers (2017-2018)

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Average salary for Junior Developers (2022-2023)

hackajob



Another example of the shift in tech roles is shown through the average salary offered. From the charts above, whilst in 2018 Front end Developers and Python Developers were being offered, on average, up to £60,000 (~\$72,000) for a junior position, that has fallen to below £50,000 (~\$60,000). There is also a wider variety of junior roles, with DevOps being a skillset that is one of the most highly-paid due to a variety of reasons, including having a unique skillset that bridges development and operations, and the cost-saving potential they offer through automation.

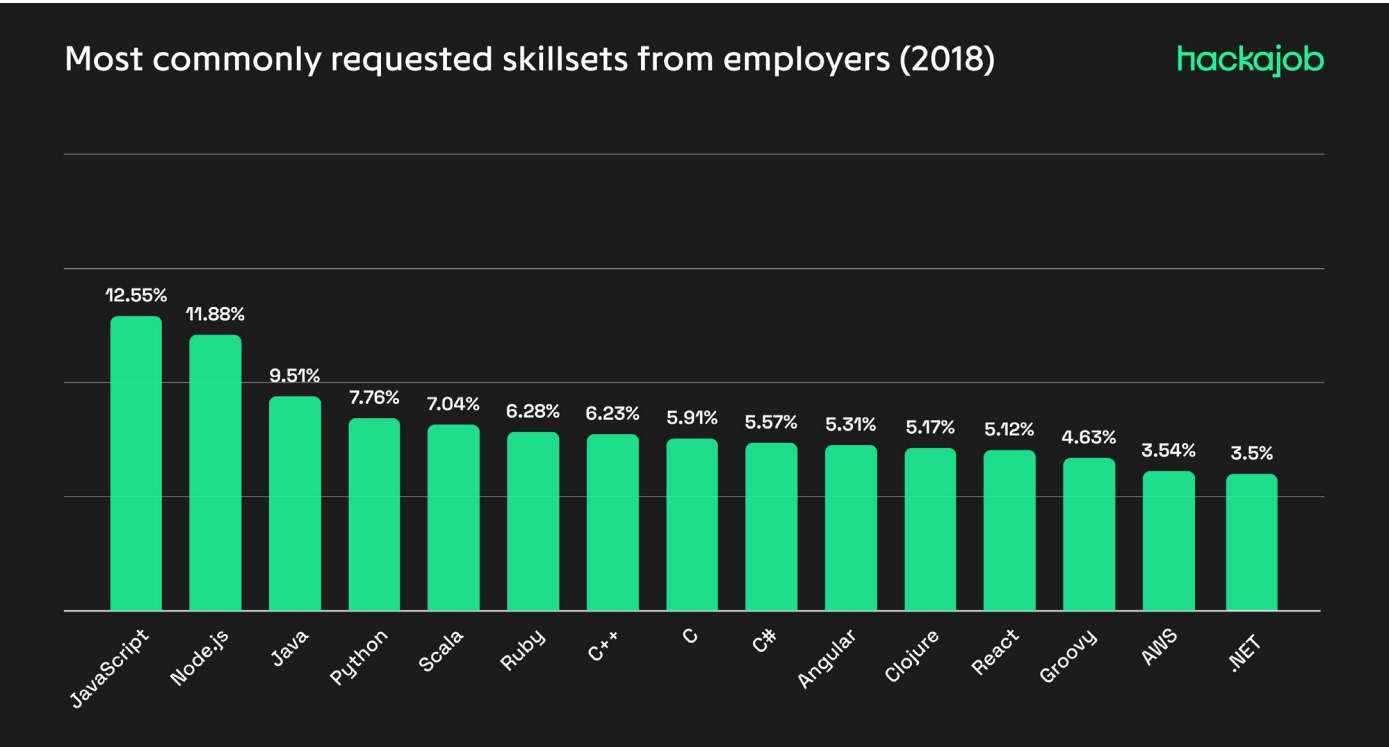
Internal Mobility

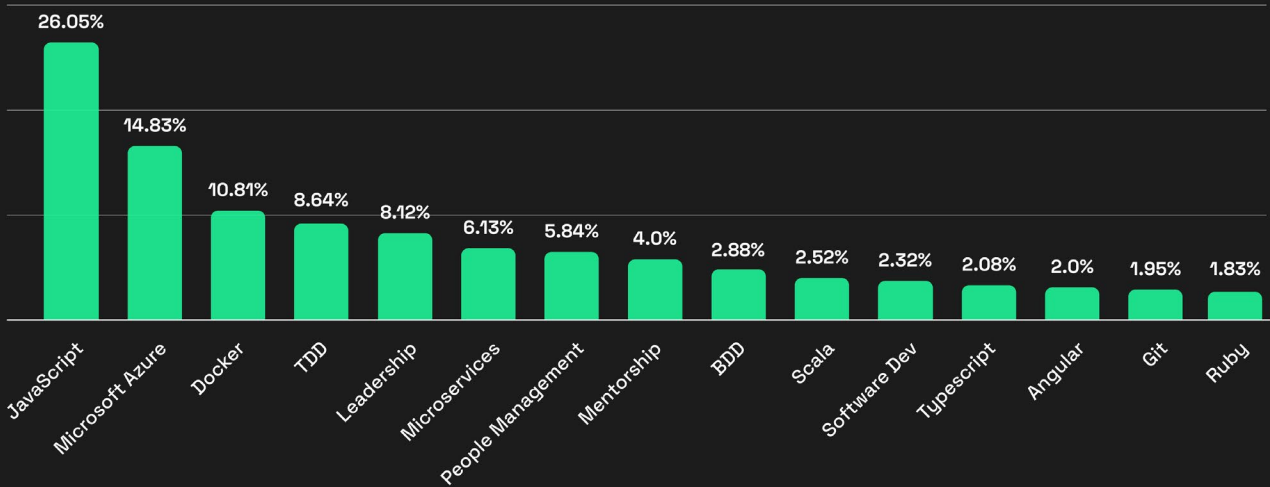
Internal mobility in the tech industry offers a dual advantage. For businesses, it means skilled and engaged employees, cost savings in recruitment, and a more diverse, innovative workforce.

It aids in retaining talent, fostering knowledge transfer, and succession planning. Employees, on the other hand, benefit from skill development, increased job satisfaction, and customisable career paths, all while staying within a familiar work culture.

We predict that now more than ever, internal mobility will be what junior tech talent seeks. As the benchmark for junior roles becomes more competitive, candidates will want to know that their role within an organisation as well as job stability, is ensured.

Mid-Senior Level Roles: What do employers want?





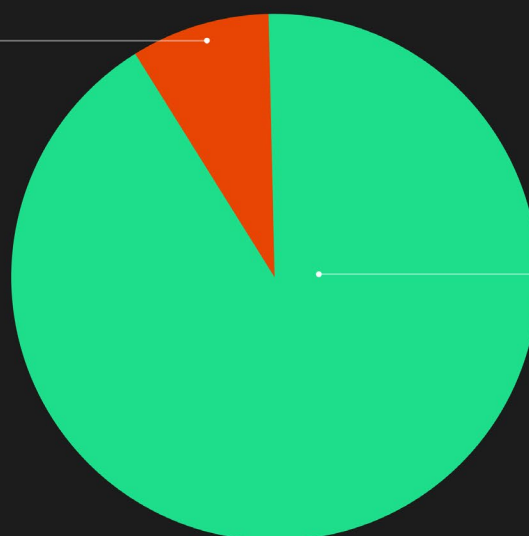
Whilst **Javascript** remains the number one most requested programming language for **organisations**, the past five years have seen an increase in Cloud practices and services with Microsoft Azure breaking the top 15 most requested skill sets as well as Microservices, Test Driven Development and Behavior Driven Development.

Mid-Senior Level Roles: What do tech talent want?

The rise of the Principal and Staff Engineer

Percentage of Principal/
Staff Engineers Hired

8.5%



Amount of Live
Principal and
Staff Engineer Roles

91.5%

More and more engineers have a desire to progress in their careers but still remain technical. Solely managerial roles are not necessarily right for every engineer, so the rise of Principal Engineers and Staff Engineers will likely continue to grow steadily over the next few years.

The rise of Principal and Staff Engineers can be attributed—in part—to the increasing complexity of technology and the demand for deep expertise in various domains.

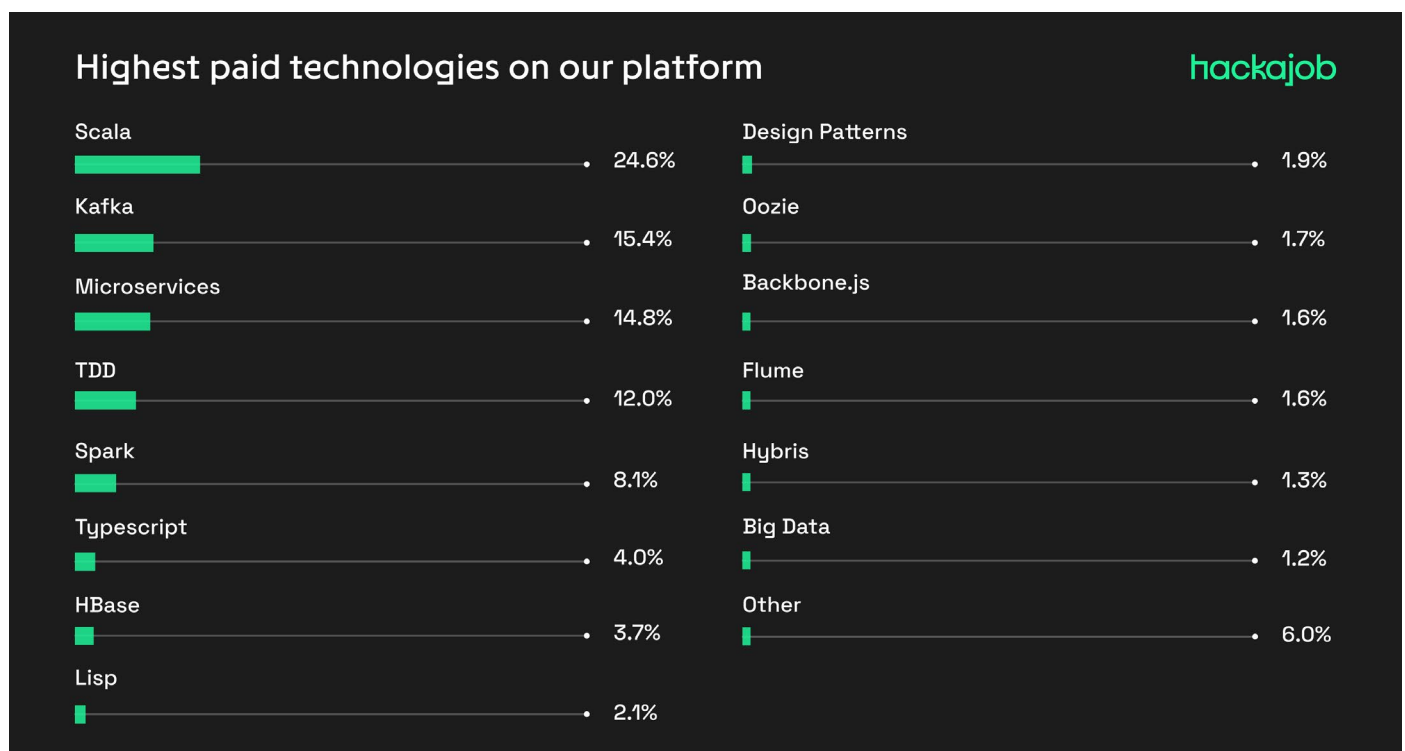
As companies develop more intricate and large-scale systems, they require professionals who can provide strategic leadership and make critical architectural decisions in line with the organisation's business aims.



Money money money

Salary in the tech industry is of paramount importance for both employers and employees. Advantageous compensation helps to attract and retain tech talent in what remains a highly competitive field. For employees, it can often reflect their value, expertise, and the demand for their skills. For businesses, investing in competitive salaries is an investment in their future success, as motivated and well-compensated tech professionals are more likely to drive productivity, creativity, and overall business performance. Whilst this may be common knowledge, in light of the economy, it begs the question: **how will we see salary change and shift in 2024 and beyond?**

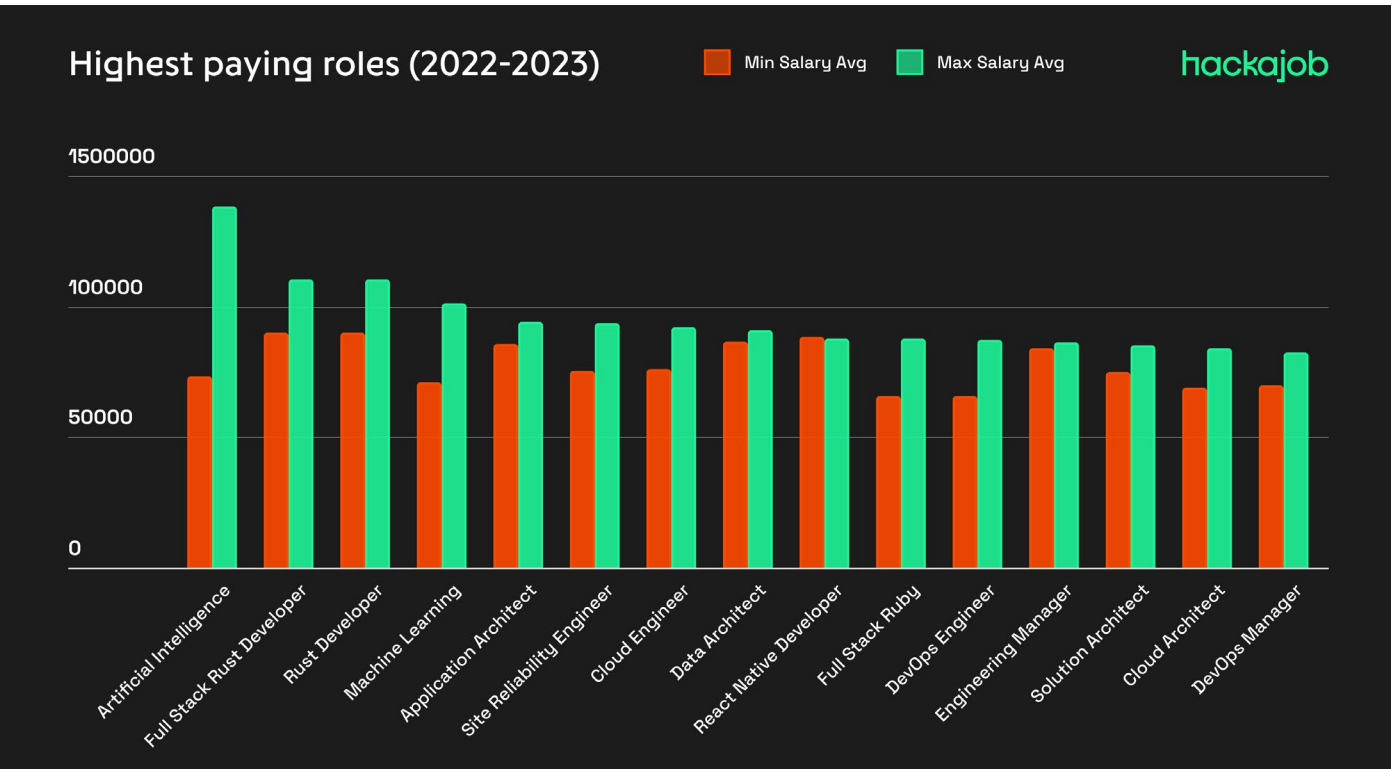
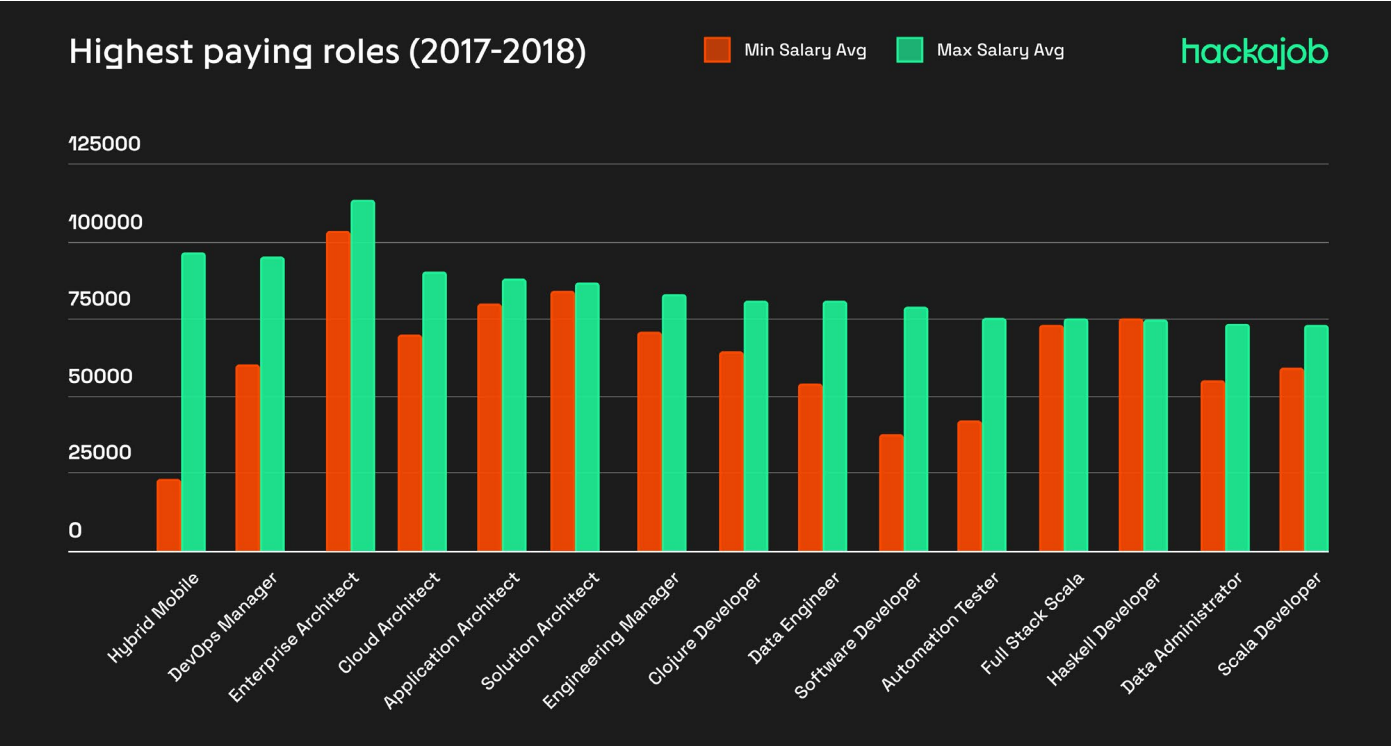
Highest Paid Technologies



If you're wondering what the highest paid technologies and skill sets are, the chart above provides a good starting point. As some technologies gain more popularity, some are new or more complex, and salaries reflect that. Amongst the highest paid technologies, employers were most likely to look for those with knowledge of Test Driven Development (TDD), Kafka, Scala and Microservices.

Highest Paying Roles

Over the past five years, not only have salaries changed, but the most in-demand roles have too. In 2018, Mobile Developers, DevOps Managers and Architects (Enterprise, Cloud and Application) were among the highest-paying roles whilst in 2023, and perhaps unsurprisingly, engineers are adept at using Artificial Intelligence, Rust, and Machine Learning, with Site Reliability Engineers now being the modern-day equivalent.



Is there a salary tax for being loyal?

Tech is one of the industries with high attrition rates. A report by Pluralsight found that 47% of technologists consider leaving their job to grow their responsibilities and skill set,⁴ whilst our [What do Tech Talent Want in 2023](https://learn.pluralsight.com/resource/offers/2023/state-of-upskilling) report discovered that salary was the top reason as to why tech talent looked outside their organisation for new roles.

This could be because moving jobs ensures that tech talent's pay keeps up with industry standards, something that many organisations struggle with when considering other costs and other employee salaries.

As the rate of inflation and cost of living crisis continues to affect individuals, organisations can expect to see more demand for competitive salaries, although this will be sector dependent. For example, the exact same role within Government, Finance and Charity sectors will not likely have pay parity.

Organisations can thus take advantage of not just remuneration, but other factors such as company culture, impactful projects and perks and benefits to retain tech talent.



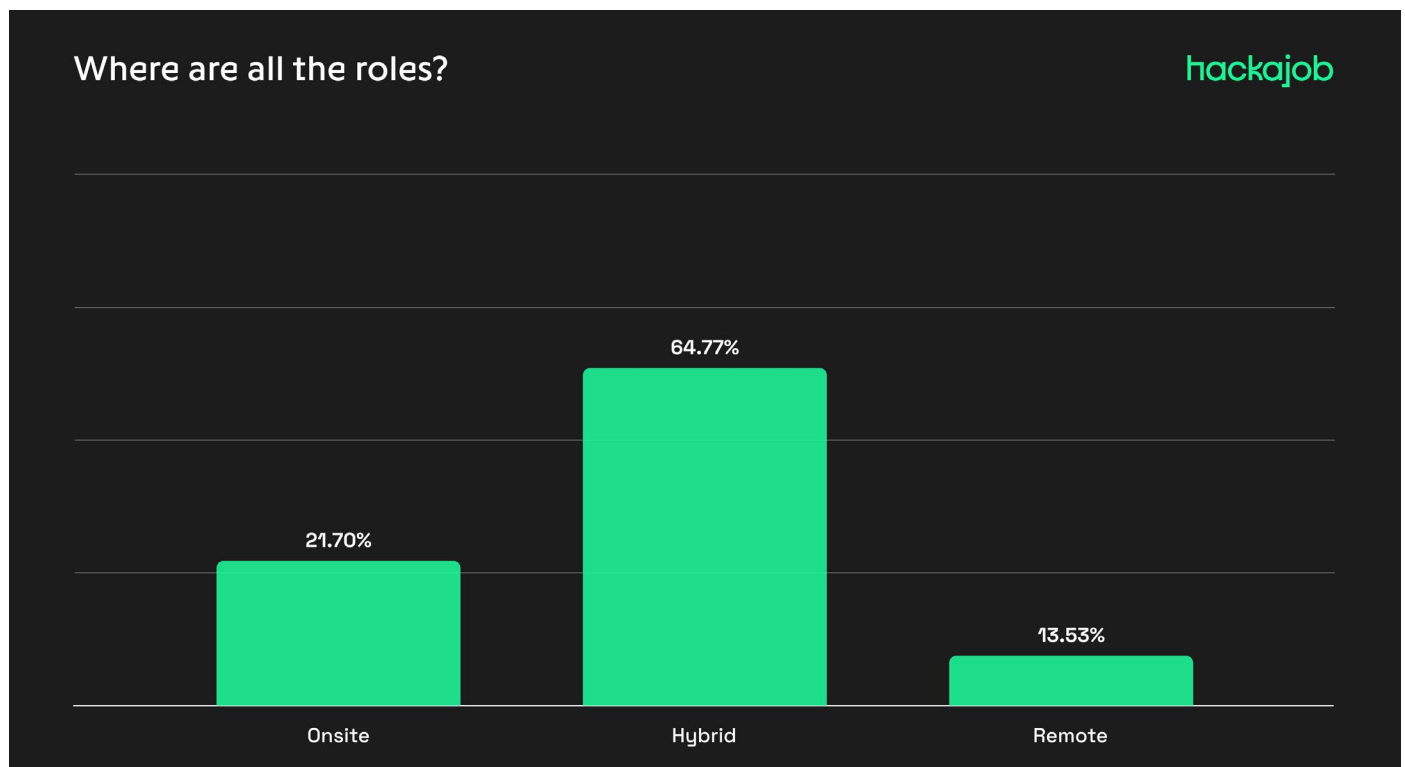
4. <https://learn.pluralsight.com/resource/offers/2023/state-of-upskilling>

Locating the Future

Onsite, remote and hybrid – what comes next?

The return to the office debate has given rise to controversy in the tech industry. Many organisations believe that in-person work fosters creativity, collaboration, and a stronger company culture, which can be vital for innovation and team dynamics. However, many tech employees advocate for continued remote work, citing the flexibility it offers, reduced commuting stress, and the positive impact on work-life balance as preferable factors. Ultimately, the controversy stems from the challenge of finding the right balance that accommodates both employer and employee needs.

However, as the data below shows, for the first time in years, remote roles are being offered less often than onsite roles, whilst hybrid remains supreme. Even though tech talent overwhelmingly support remote and hybrid roles, this shift is unsurprising as many organisations grapple with a changing economy and post-Covid approach.

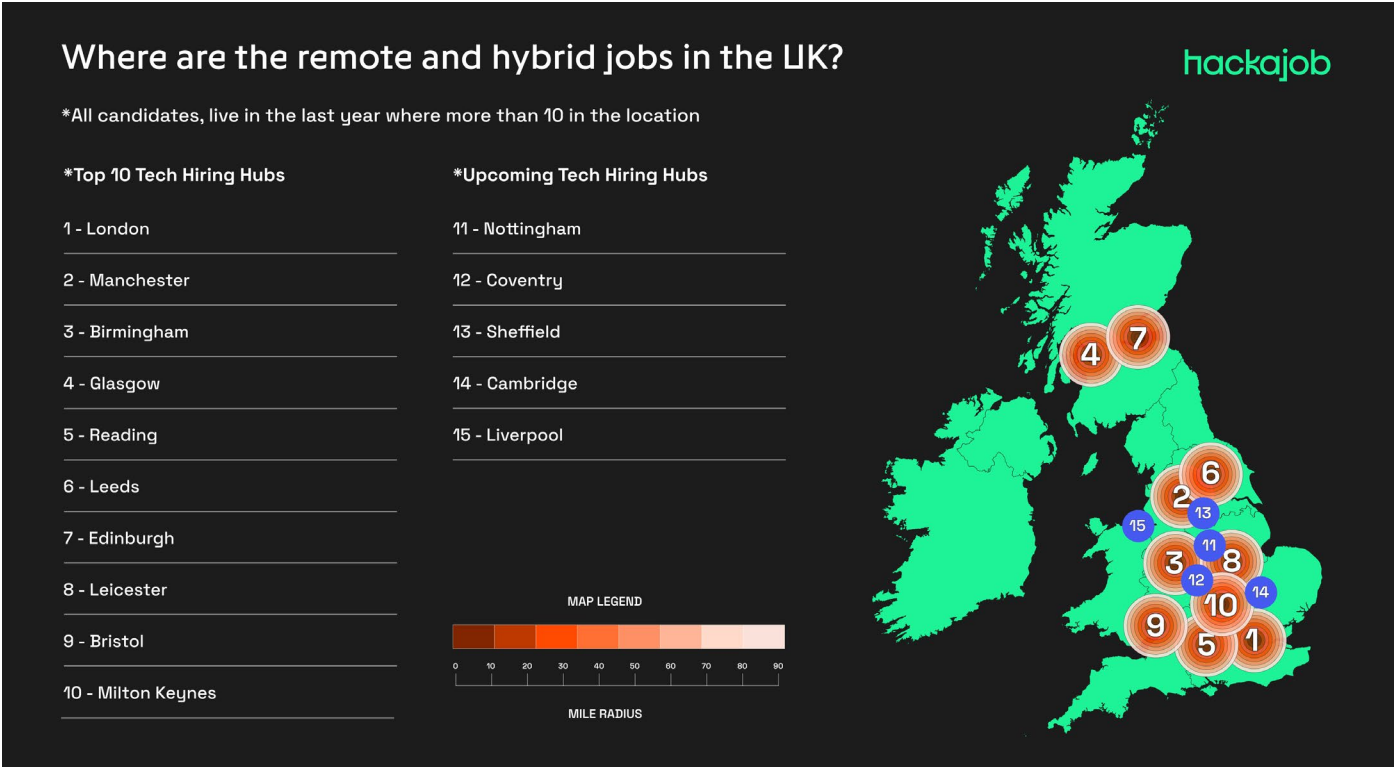


We predict that whilst organisations continue to offer hybrid and onsite roles, remote roles will remain as popular as the past few years have shown what is possible to tech talent. Organisations must now decide whether they will align with tech talent’s expectations or forge ahead with sometimes unpopular working patterns.

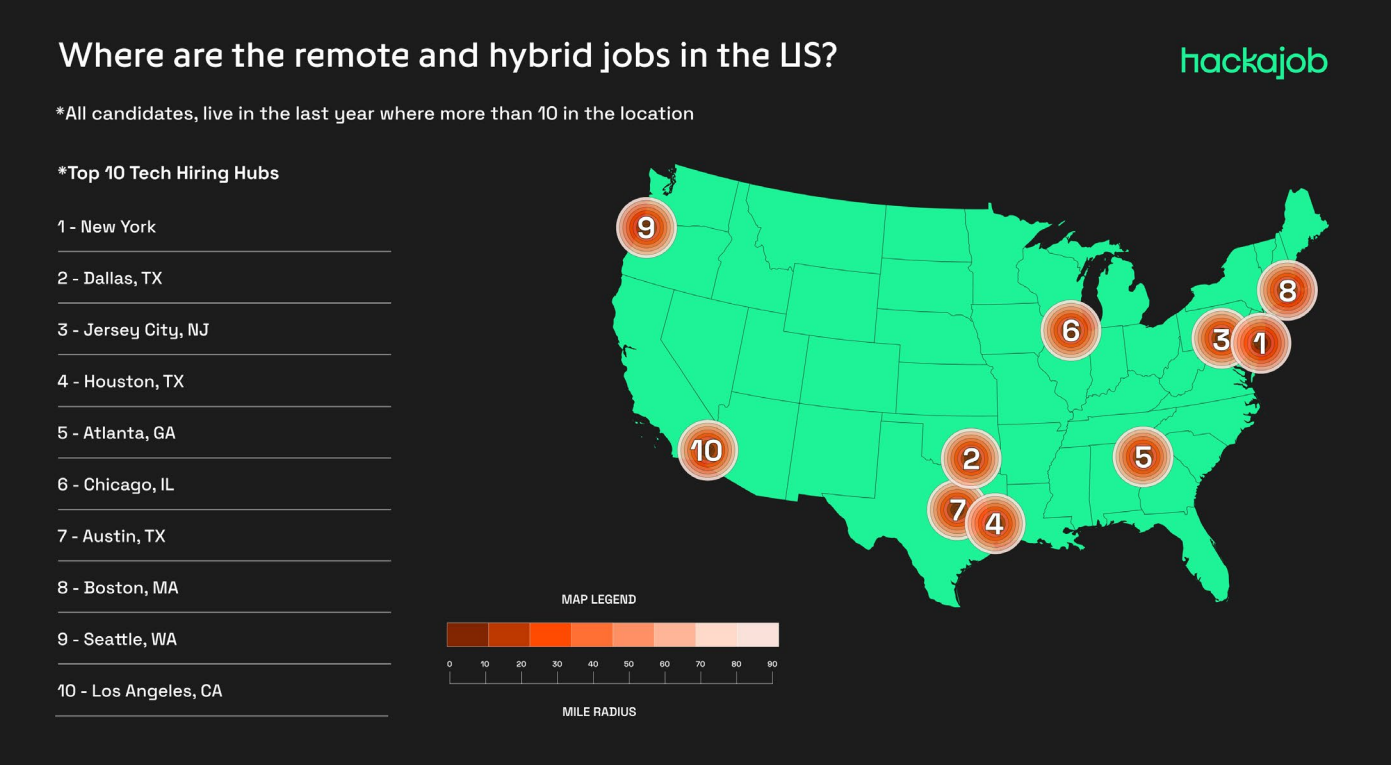
UK and US Trends: A comparison

Whilst London remains the top tech hiring hub in the UK, pockets of tech talent can be found throughout the UK. Alongside the well-known hubs in Manchester and Birmingham, tech talent can be found in Glasgow, Reading, Leeds and the Midlands.

From the data, we also predict that a ‘middle-belt’ of experienced tech talent will emerge, as Nottingham, Coventry and Sheffield show promise with many tech professionals finding their place in these cities.

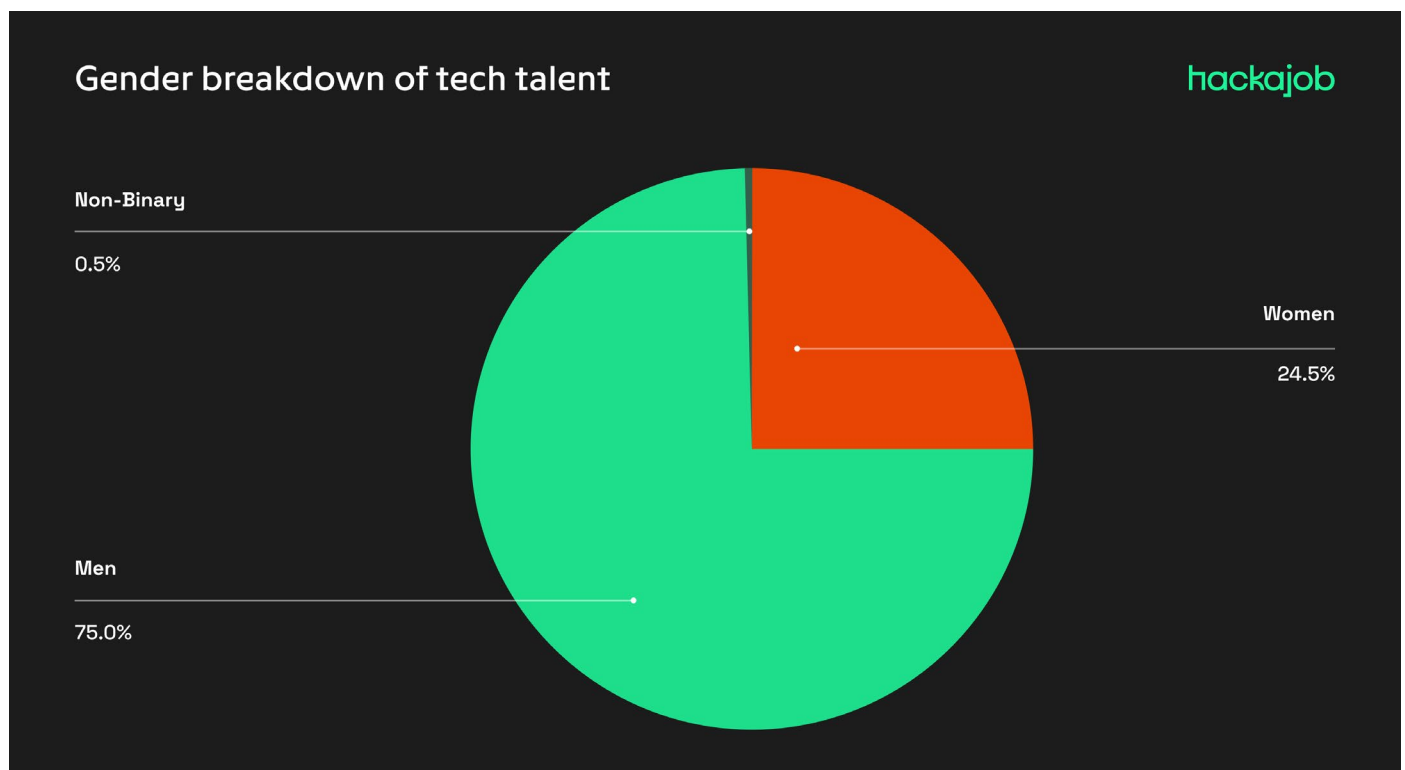


Whereas for the United States,
New York remains a thriving hub
of activity along with Dallas, Jersey
City, Houston and Atlanta.



Diversity – Is the needle moving?

Now more than ever, organisations are realising the importance of strengthening diversity, equity and inclusion (DE&I) within the workplace. DE&I has now become a strategic imperative to improve problem-solving. Diverse teams are more reflective of a global customer base, which can lead to improved products and services.⁵ In essence, diversity is a driving force for progress, competitiveness, and ethical responsibility within the technology field.

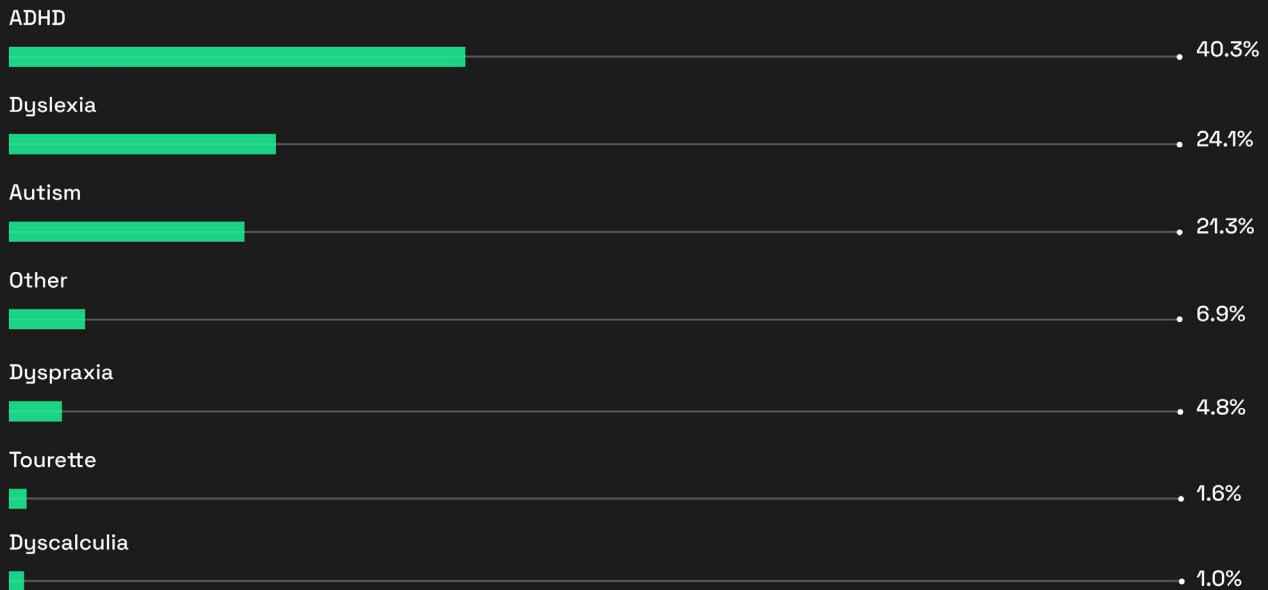


Our platform data shows that the dial for gender diversity within tech is moving forward, with **1/4 of tech talent in mid-senior level roles being women**. Often, those of diverse backgrounds can be overrepresented at a junior level, but our data shows that there is the beginning of a shift away from this.

5. <https://www.mckinsey.com/featured-insights/diversity-and-inclusion/diversity-wins-how-inclusion-matters>

Neurodiversity breakdown of tech talent

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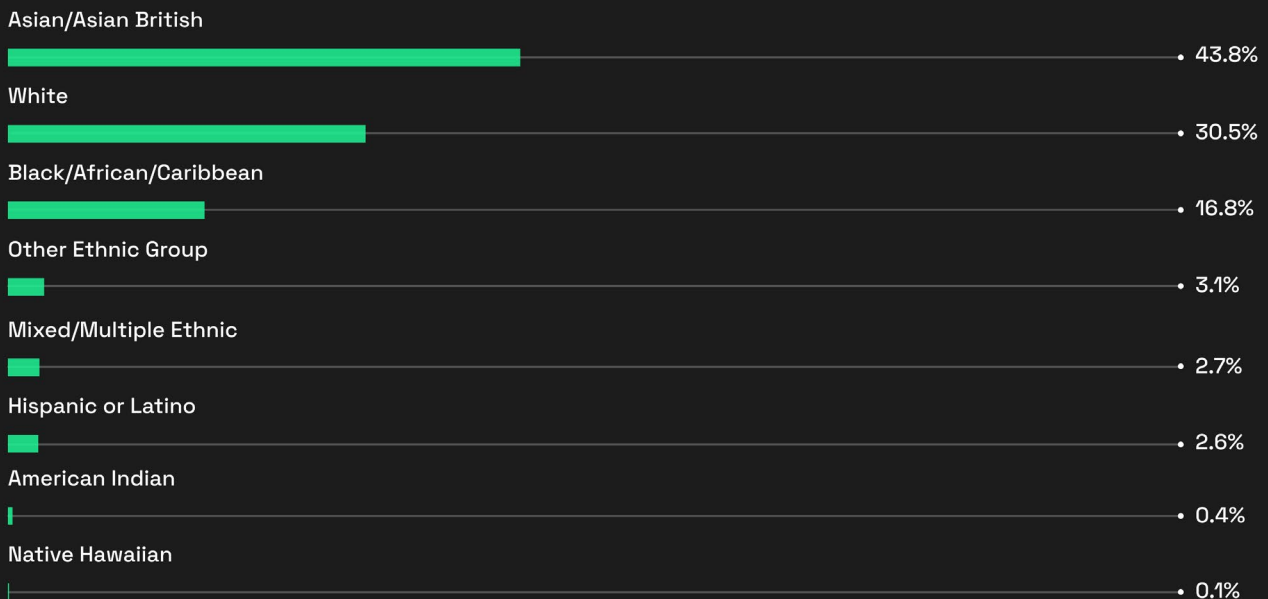


With 9% of tech talent self-identifying as neurodivergent, it could be easy to assume that those who are neurodivergent are few and far between but this couldn't be further from the truth. In fact, as more support becomes available from businesses that focus on employee satisfaction and cultivating an inclusive culture, we predict that more and more tech candidates will feel comfortable to self-identify.

Some ways to support neurodivergent people prove controversial. For example, an organisation could provide interview questions beforehand as performance in interviews can sometimes be impacted, e.g. those with ADHD may not be able to craft an answer quickly or within the given timeframe. However, it is important to not single people out, but to follow the lead of the individual and what they feel comfortable with.

Ethnic breakdown of tech talent

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As company culture and mission begins to hold more importance to candidates,⁶ we predict that more and more tech talent will expect organisations to provide further support, whether that be through personalised career progression, organisational frameworks, or employee resource groups. When it comes to diversity, equity and inclusion, many organisations work hard to provide a place where their employees can ‘bring their whole selves to work’, or in other words, a place where they can wholly be themselves. To stand out from the crowd, employers will need to hone how they support tech talent from the very beginning.

This starts with the application and interview process, and moves on to onboarding and beyond. Once in an organisation, companies should avoid tokenism. or example when it comes to ethnicity/race and sexual orientation, is your company moving the dial forward for these groups outside of celebrating on one day?

Making donations to local causes, educating the wider organisation and providing safe spaces can go a long way.

6. <https://hackajob.com/report/what-do-tech-talent-want-in-2023>

What's next?

The future of tech hiring promises to be dynamic and marked by several trends.

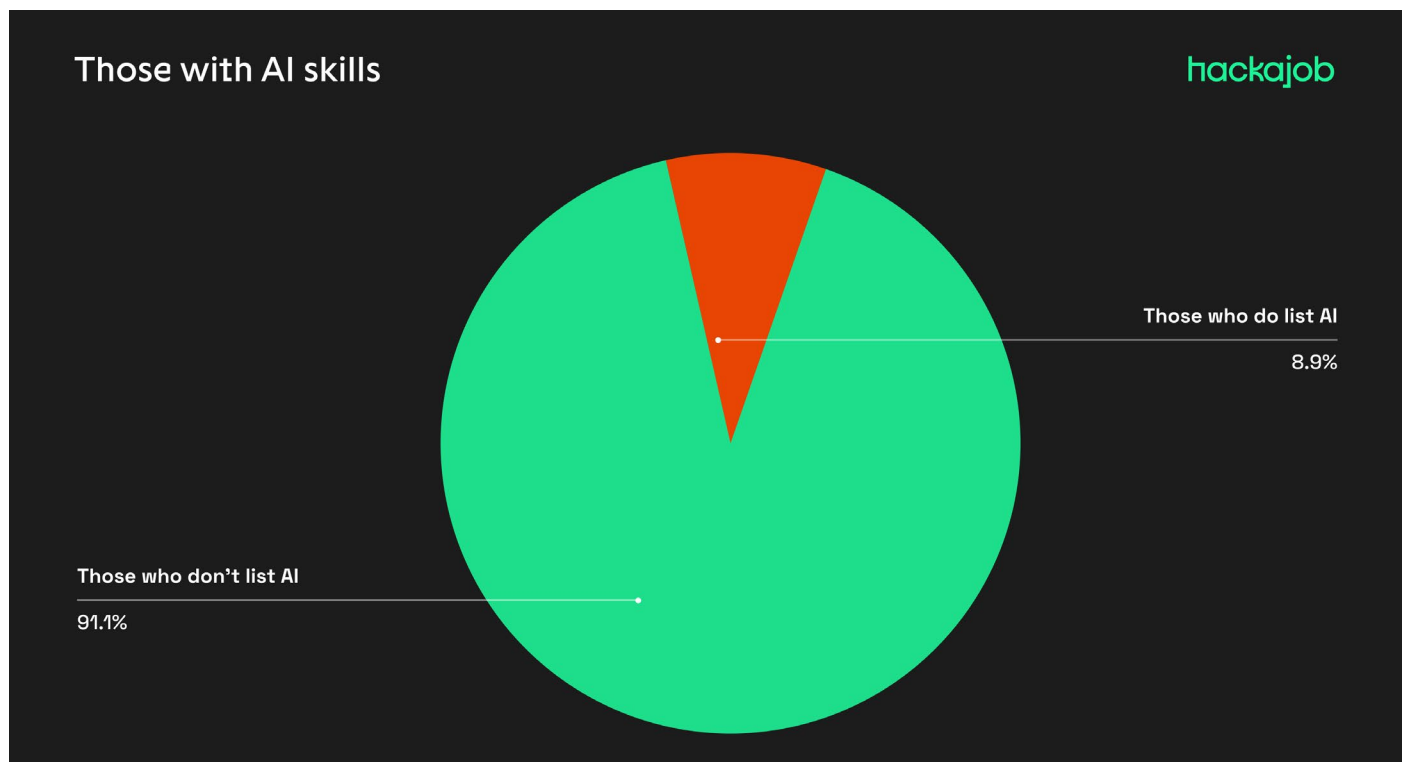
From the current state of the industry, it can be assumed that skills-based assessments and competency evaluations will continue to gain importance, shifting the focus from traditional credentials to practical abilities.

We also foresee that the use of AI-driven tools in the recruitment process will increase, streamlining candidate selection and reducing bias. Lastly, continuous learning and upskilling will become a norm, as the tech industry's rapid evolution demands adaptable and lifelong learners.

Will AI take our jobs?

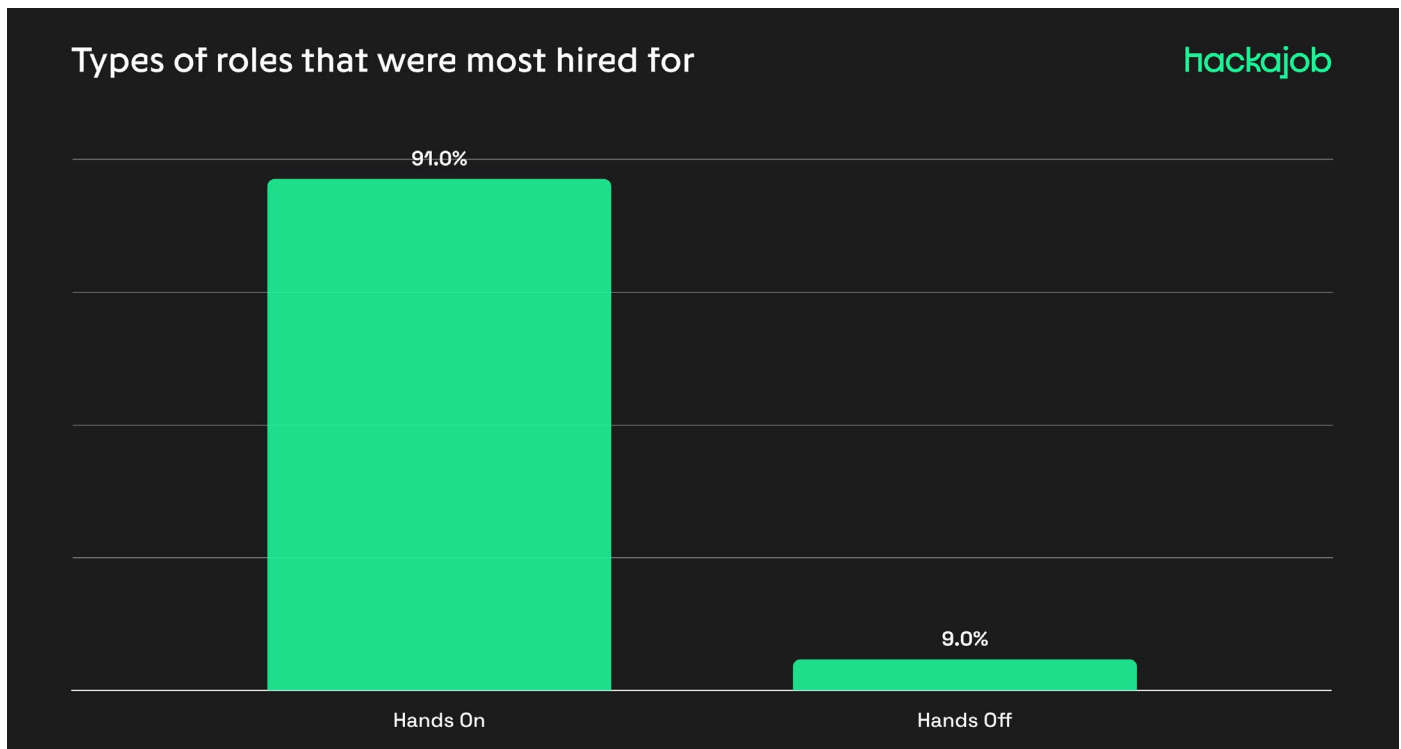
Put simply: no. AI is unlikely to replace tech jobs entirely, although it will continue to automate tasks and improve efficiency for tech workers. Creativity, critical thinking, problem-solving, and strategic decision-making skills that tech professionals bring to the table won't be replicated in a hurry.

However, more and more organisations are seeing the value of incorporating AI into their processes; from sourcing tech talent to onboarding and more, it is much more likely that AI will be a friend and not a foe.



AI serves as a powerful tool to improve the efforts of people, empowering tech talent to focus on more complex aspects of their work. Tech professionals who adapt and learn how to work alongside AI will find themselves in high demand, as they can harness the technology to drive innovation and solve challenging problems, ensuring their continued relevance in the ever-evolving tech industry.

The Future of Career Progression



The difference in the number of hands-on roles and hands-off roles is stark. Behind tech innovation are the people who make it happen, and as more mid and senior roles open up, so too will the pool for hands-on, technical talent. Increasingly, organisations will need to create more personalised career paths to support their tech employees no matter the path they would like to take.

For example, hands on roles such as System Engineers and hands off roles such as Engineering Managers, both require regular check-ins around career progression to maximise outcome.

Conclusion

Evidently, the recent state of the tech industry has been characterised by turbulence, with various factors contributing to its ups and downs. From the initial impact of the pandemic to the phenomenon of The Great Resignation, the industry had appeared resilient, with organisations increasing their tech hiring efforts.

Amidst this turmoil, the importance of adaptability and upskilling in the tech industry became evident as both employees and organisations sought to navigate uncertainties and seize emerging opportunities. While the tech hiring landscape witnessed a transformation, there is light at the end of the tunnel.

The upcoming year will hold significant importance for both employers and employees as we continue to navigate a rapidly changing world of work. As we look ahead to 2024, it becomes clear that the tech industry, though volatile, continues to present opportunities for both organisations and tech professionals.

The key to success lies in adaptability, a commitment to upskilling, and a proactive approach to addressing the challenges and opportunities presented by the ever-evolving tech ecosystem as well as balanced interview panels and allowing extra time in interviews for all candidates.

Methodology

The data that this report is based on was gathered and analysed by hackajob using figures from jobs offered, jobs declined and locations from our platform.



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of people building.

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The data, insights, and tools to empower your recruitment strategy and attract diverse talent. Engage by hackajob will enable your organisation to:

Boost visibility of diverse candidates in your hiring funnel

Layer your talent pipeline with our candidate diversity data and pinpoint where and why you may be losing diverse talent at various stages. Take action and create a more inclusive hiring environment.



Benchmark against your competitors

Use informed peer comparisons to understand the effectiveness of your hiring process. Compare real-time interview metrics and brand sentiment data to identify performance gaps and where you may fall behind your industry peers.

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