

Hiring and Retaining Tech Talent 2023

We surveyed over 1,100 talent acquisition managers and engineers to help optimize your hiring and retention processes for tech teams built to last.





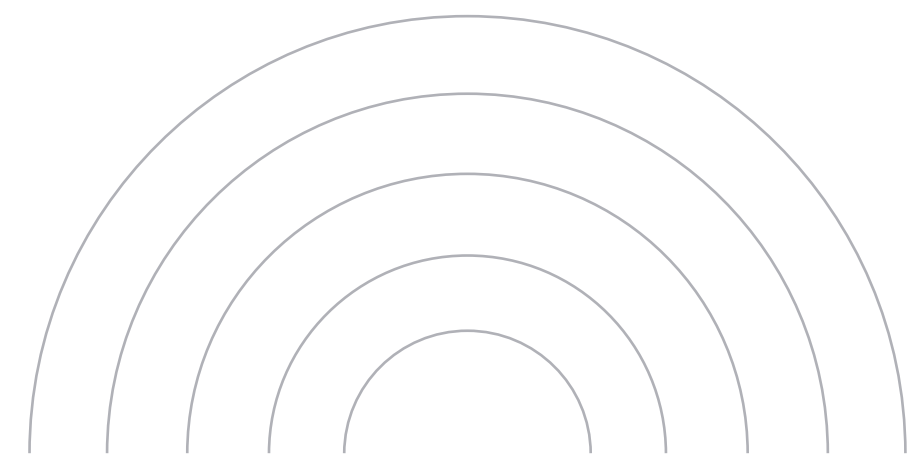
DEAR READERS,

The best way to describe today's tech hiring and the job market is *unpredictable*. In recent years, the tech world has had to pivot and innovate faster than it was prepared for, and engineering culture has been deeply impacted because of it.

2021 ended as a candidate's market, with tech companies not just hungry for engineers but *needing* them to stay afloat.

2022 kicked off with the Great Resignation, as long-serving engineers began to rethink their motivations and views on important issues, such as career choice, purpose in the workplace, and mental health.

Fast-forward to today, and we're now seeing layoffs from some of the biggest tech firms across the globe — with [more than 90,000 tech workers losing their jobs](#) in the U.S alone. Amidst talk of an impending recession, engineers are more uncertain than ever before — but our latest report shows some bright spots in hiring and retention trends we think you need to see.



Whether you have a budget to hire but are finding it hard to win top tech talent or you're mostly freezing hiring, now more than ever, you need engineers with the right skills and interests. You need engineers who can quickly skill up on your tech, help your business scale, and adapt to any surprises today's world throws our way. Most importantly, you need engineers that will stay.

For this report, we surveyed more than **700 engineers** about their workplace priorities and role expectations. We learned that engineers care a lot about their salary, but they also care about career development and growth opportunities. What's more, they want to be challenged in their day-to-day. **Based on this data, we've included helpful insights and tips on how to create a healthy and "sticky" retention culture for engineers.**

We also interviewed over **400 talent acquisition (TA) specialists and HR people**. Their insights shed light on how **TA teams** can pinpoint the right qualities of the position they're hiring for and how they can make their hiring processes more efficient.

These insights are also fantastic signals for engineer managers on how to better retain tech talent in today's competitive climate.

We hope this report proves useful to your company's continued growth.

Neil Morelli, Chief I-O Psychologist at Codility

REPORT HIGHLIGHTS



The key takeaways from our engineering culture survey are:



Engineering is still a male-dominated industry, **83%** of respondents identified as male.



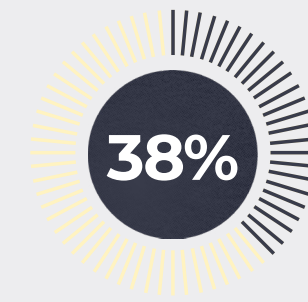
Engineers don't always feel intellectually challenged at work. **79%** of respondents said they feel intellectually challenged sometimes, rarely, or never.



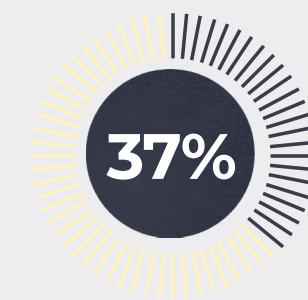
Engineers care most about their salary – **60%** of respondents said it was the most important benefit to them, and **36%** said it was the most important factor when choosing an employer.



Engineers still care heavily about their professional development opportunities, with **56%** ranking it as very important to them.



Engineers don't feel supported entering new roles, with **38%** saying they did not receive sufficient onboarding with their current employer.



37% Engineers don't feel recognized for their work.



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METHODOLOGY

The data and findings in this report are a combination of two global online surveys hosted by Codility.

Survey No.1, Retention & Hiring Trends in Engineering HR, surveyed 423 talent acquisition and human resources professionals from December 2021 to February 2022 across seven industries and more than 20 countries.

Survey No. 2, The Software Engineer's Workplace, surveyed 711 software engineers from December 2021 to February 2022 across seven industries and more than 20 countries.

To gain more insights or to discuss the methodology, please contact research@codility.com.

THE STATE OF TECH RECRUITMENT & RETENTION

“A lot of the questions around job roles, right now, is all about: ‘What are you going to get.’

But what if you were making the role attractive by answering questions like ‘What are you going to do?’, ‘What are you going to give?’ ‘What’s going to challenge you?’”

— Neil Morelli, Chief I-O Psychologist at Codility.



Understanding engineers: what talent wants.

In 2022, engineers care about their salary and benefits as much as the next employee, but they also care deeply about professional growth and being challenged.

What's more, engineers stated finding a mission they admired (23%) and a strong company culture (22%) as some of the biggest struggles when looking for a job.

If tech organizations stand any hope of attracting and retaining talent today, they'll need to start bringing more to the table than a competitive salary.

For people ops teams, there's no time like the present to reconsider your retention tactics. Our survey found that over half (56%) of engineers frequently think about quitting their job — the Great Resignation's second wave is very much in full effect.

KEY OBSERVATION

Companies need to bring more to the table. Over half of engineers frequently think about quitting their job in a quest for culture, mission alignment, and a better salary.

What is/are the reason(s) that you're thinking about leaving your current job?

Top reasons:

No opportunity for professional growth



I'm bored and want something new



Projects are not well led/are not on the right track





Engineers want professional growth.

So, what do engineers want today? What will attract that top talent, and, more importantly, what will keep it?

It turns out that engineers want more than a healthy paycheck.

Alongside boredom and wanting something new, engineers have demonstrated they'll take action if they lack a growth plan, with 36% of them stating "no opportunity for professional growth" as the top reason for leaving an employer in the past.



KEY OBSERVATION

Engineers want to be challenged in their role and to see a clear professional growth plan for them. If not, they'll look elsewhere.

What is/are the reason(s) that you have left an employer in the past?

Top reasons:

No opportunity for professional growth



I was bored and wanted something new



Projects were not well led/were not on the right track



HOW MUCH DOES MONEY MATTER?

“Money absolutely matters. Ultimately, people want to know they are being paid competitively in comparison to the market, and they’re being paid fairly compared to their colleagues. Most people don’t leave over money, however.

The data is clear that more and more people are leaving over the lack of perceived purpose and learning and growth opportunities for their career in tech.”

— **Jason Medley, Chief People Officer at Codility.**

Engineers want to contribute to innovation.

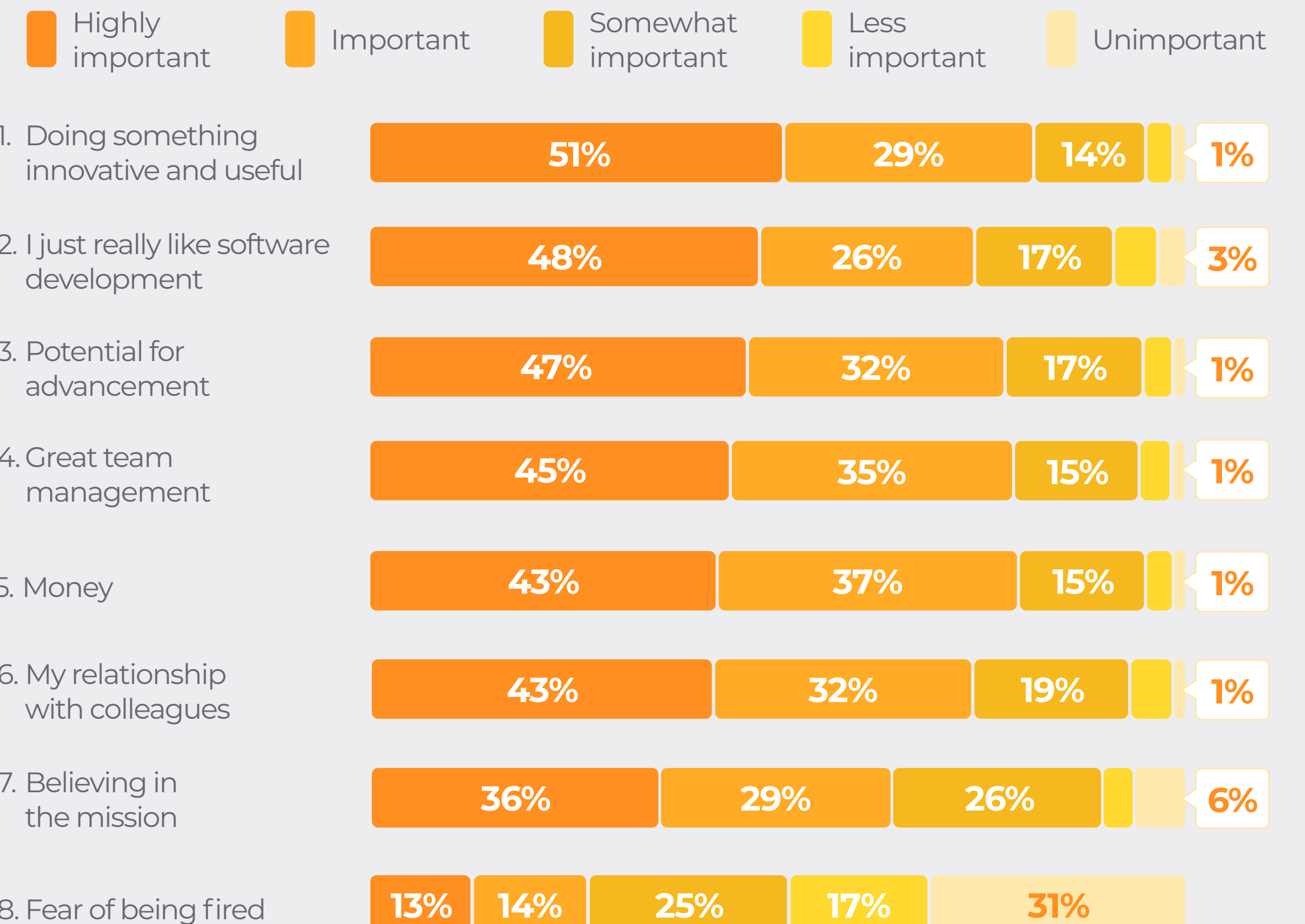
The pandemic brought with it a lot of time for employees to reconsider their purpose — both in and out of the workplace. It led to The Great Resignation, and beyond this, it has led to people searching for purpose in their work more than ever before.

Understanding what motivates engineers can contribute to their feeling fulfilled and satisfied with how they spend their time.

We asked 711 engineers how important eight factors are to their overall motivation in the workplace (from “highly important”, “important”, “somewhat important”, “less important” to “unimportant”). We display all responses to each factor, ranked in order of the percentage of engineers who said each factor was “highly important”.

KEY OBSERVATION

Engineers are engineers by choice. They enjoy what they do and are passionate about innovating.



Entry-level engineers want mentorship: they just don't know it yet.

Over a third of engineers stated they would have benefited from some kind of mentorship or learning opportunity when they were starting their career and would lend this advice to any engineer starting their career today.

Mentorship and learning opportunities are in high demand, suggesting that many tech companies are missing the opportunity to entice and retain entry-level talent.

KEY OBSERVATION

Mentors are the secret behind a sticky retention culture for junior engineers.

What is one piece of advice you'd offer someone starting their career in software development?

Engineers repeat the words "learn" "mentor" – "learn" or "learning" repeated **131 times** across 384 responses; "mentor" or "mentorship" repeated **10x**.



Rate the size of the following challenges of being an entry-level or junior software developer



Engineers want to feel challenged.

If you're not keeping engineers on their toes, they'll do it themselves as they look for something else. After a lack of professional growth opportunities, boredom is the second most common reason engineers think about, and ultimately leave their jobs.

Unfortunately, only 21% of this same group of engineers said they always felt intellectually challenged at work. This leaves a massive 79% of engineers under challenged and potentially at risk for churn.

KEY OBSERVATION

Engineers are prepared to walk the walk as well as talk the talk. Their reasons for thinking about leaving employment are the same reasons they've left previous employers.

What is/are the reason(s) that you...

think about leaving your **current** job.

have **left an employer in the past.**

Top reasons:

Top reasons:

No opportunity for professional growth

53%

36%

I was bored and wanted something new

49%

18%

Projects were not well led/were not on the right track

43%

14%

Do you feel intellectually challenged at work?

Always

Sometimes

Rarely or never

21%

55%

24%

Engineers still care about salary.

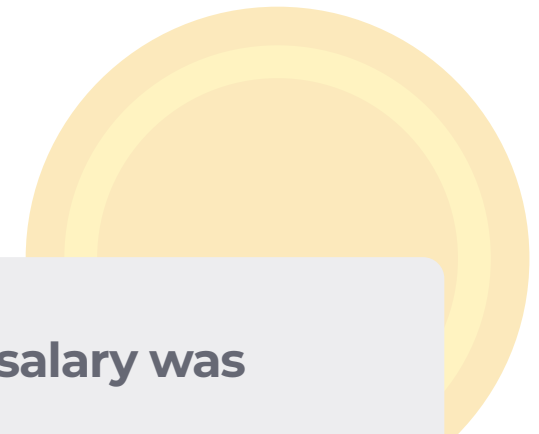
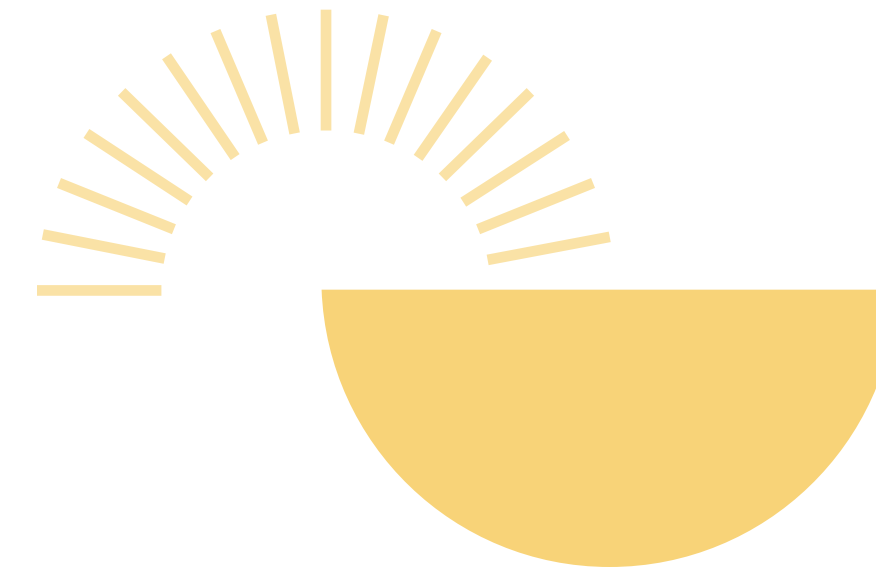
When it comes to benefits, engineers rank a high salary or bonus as the most important for them (60%).

We dived deeper into money talk and asked engineers if they think their current salary is fair. The results were almost split down the middle, with 50% saying yes and about 49% saying no.

Engineers are comfortable negotiating a higher salary, with 53% saying they've done so in the past.

KEY OBSERVATION

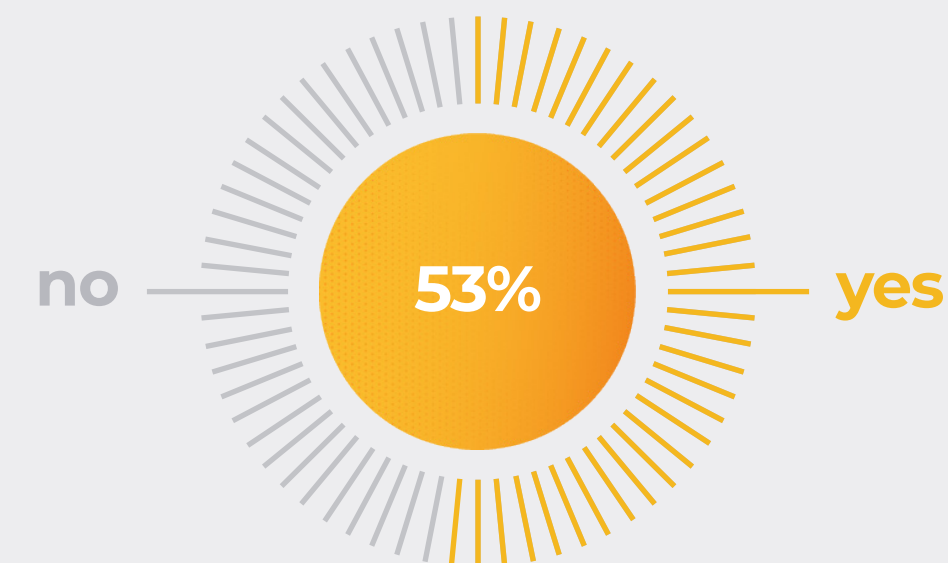
TAs will need to be prepared for salary negotiations and to navigate them at speed if they hope to win over engineers



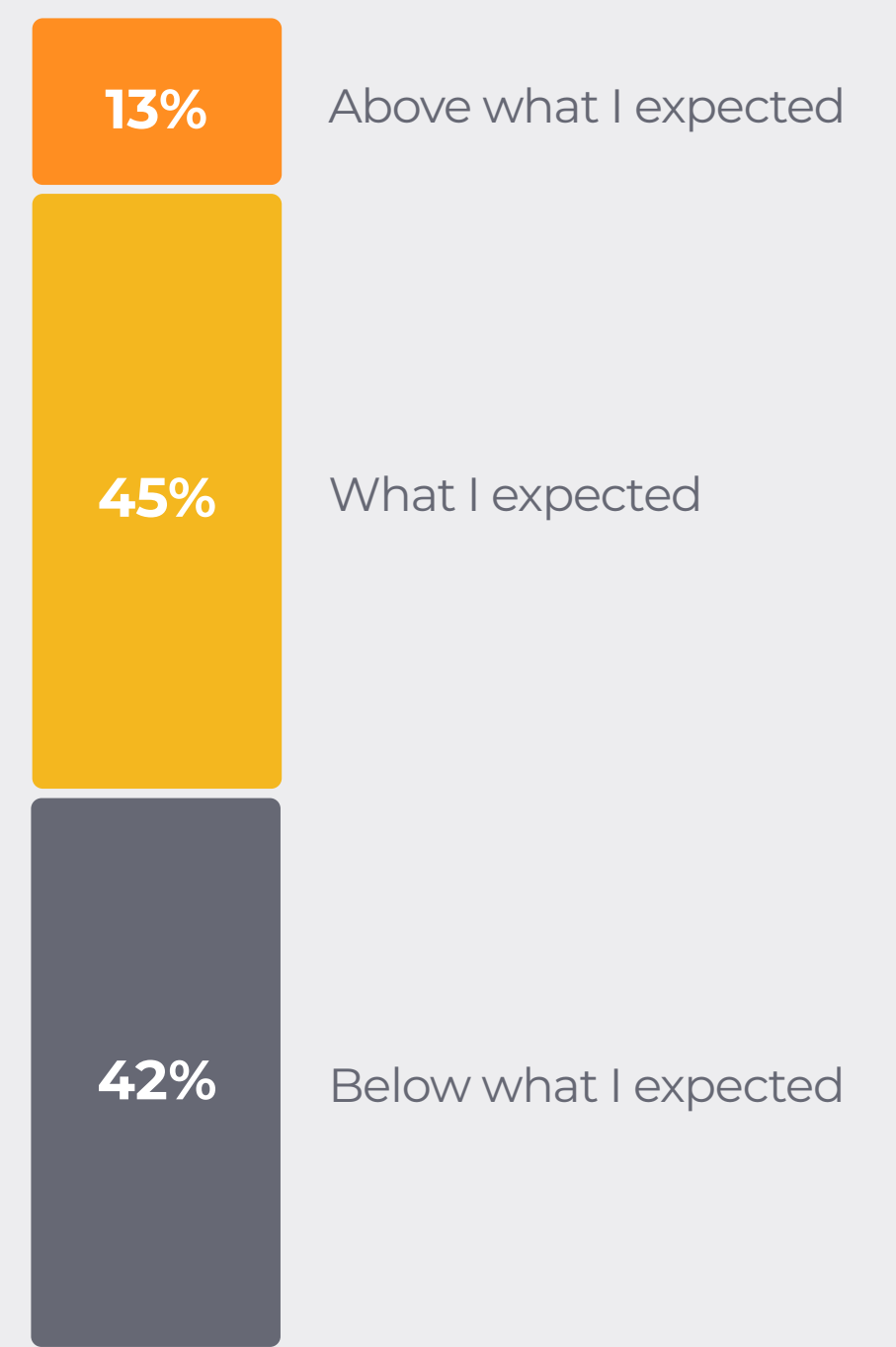
Do you think your salary is fair?



Did you negotiate a higher salary when you received your job offer?



At the initial job offer, my salary was



HYBRID IS HERE TO STAY — WHAT'S NEXT?

“Hybrid work has had its fair share of ups and downs over the past few years, but unless you are an engineer at Google, I think we can all agree that the days of developers going into an office 10 hours a day are long gone. High-performing, remote, global scrum teams are here to stay!”

— **Jeremy Schmidt, Senior Director of Global Talent Acquisition at Codility.**

Engineers want hybrid work options.

From “no one leaves the office before six” to “no one leaves their homes,” the world has experienced a lot in the last few years. There was a moment when the entire tech world seemed to be remote-first, with companies like Twitter, Amazon, and Airbnb announcing bold moves toward fully autonomous workplaces.

However, in recent months, [the remote climate has taken a turn](#), and these once forward-thinking tech leaders are now getting cold feet and withdrawing from previous plans.

What’s come of it is often a happy medium: hybrid work options. These typically entail a certain amount of mandatory days in the office and options to work remotely (yet, in the country) if you wish.

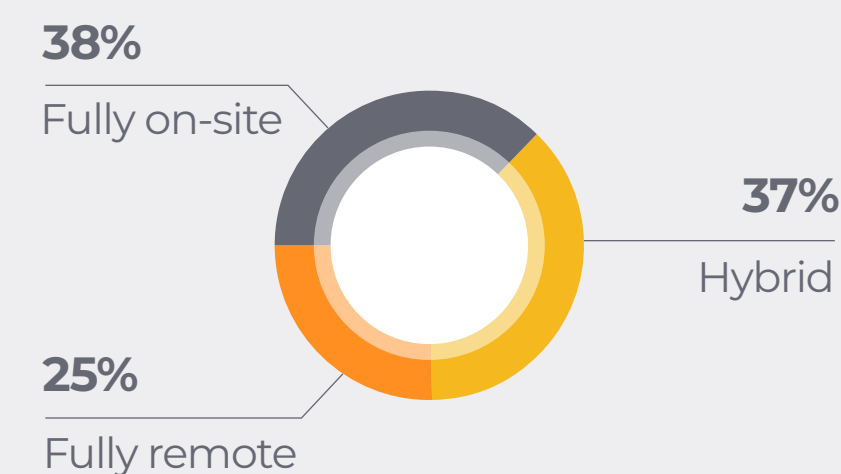
KEY OBSERVATION

Despite hybrid work models receiving bad press of late, it doesn’t seem to be impacting engineering teams.

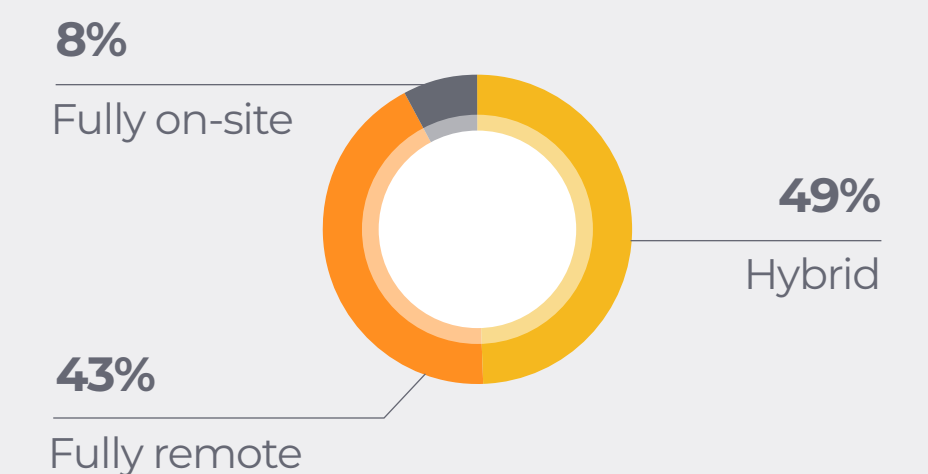
The remote global climate has certainly had an impact on engineers. Engineers had once ranked hybrid or **fully onsite** work options as a favorite. However, this took a drastic turn after the pandemic, and engineers now rank **hybrid** and **fully remote** options as favorites; only 8% now say they want full onsite roles — down about 30% from pre-pandemic.

At the same time, TA teams affirm the switch, with 61% implementing a full on-site work model pre-pandemic and 64% implementing a hybrid work model today.

What type of work model did engineers prefer BEFORE the pandemic?



What type of work model do engineers prefer POST pandemic?



IMPROVING THE HIRING PROCESS

“Your engineering team is your best resource to improve your HR strategies. When in doubt, go straight to the source and ask your engineers about their hiring experience at your organization.”

— **Nataliya Pasichnyk, Engineering Manager at Codility.**

When hiring lags, companies lose.

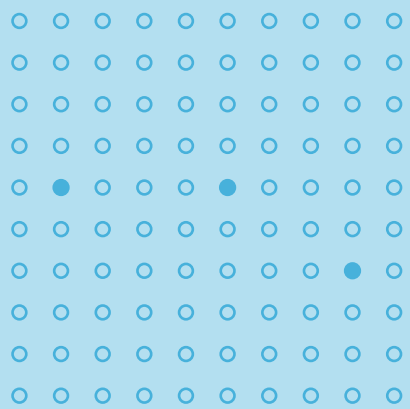
Now, let's shift to the results of our TA survey data on retention and hiring trends. TAs are currently unhappy with the state of their hiring processes for tech talent.

More than half said they were considering changing their hiring process for software engineers (61% vs. 39%). Many TAs explained that their biggest priority was to make it quicker.

More than half of TAs say they do three to four interviews for a technical role.

KEY OBSERVATION

TAs know they're not moving quickly enough to win the talent they need. Most TAs we interviewed said moving candidates through the hiring process fast enough was highly challenging to somewhat challenging.




We are considering changes to our hiring process for software engineers:

YES

NO



Finding the right candidates for so many unique roles can be challenging – especially when there isn't a standardized recruiting process.

[Here's how Codility saved Unity 2,200 hours of recruiting time.](#) →

GREAT CANDIDATE EXPERIENCES REQUIRE COLLABORATION

“You have to create an efficient process that values the candidate’s time, but also allows you to quickly measure their technical aptitude in a collaborative way and creates a great candidate experience.”

— **Jeremy Schmidt, Senior Director of Global Talent Acquisition at Codility.**

Finding efficiencies and improving communication.

Right now, engineering candidates are largely unimpressed by employer hiring processes. Despite the majority of TAs rating their hiring process as “good,” engineers have very different experiences; 50% said their employer hiring processes were average or worse.

Codility Engineering Manager, Nataliya Pasichnyk shared her thoughts:

“Because EMs/PMs are not always involved in the early parts of the screening process, they end up having candidates that, while “technically” perfect, are not the right fit for their teams in terms of approaches or processes.

*Candidates may lack critical soft skills or may clash with team dynamics. Our survey data affirms this. **16% of TAs ranked conflict with team dynamics was the second most common reason developers were let go.***

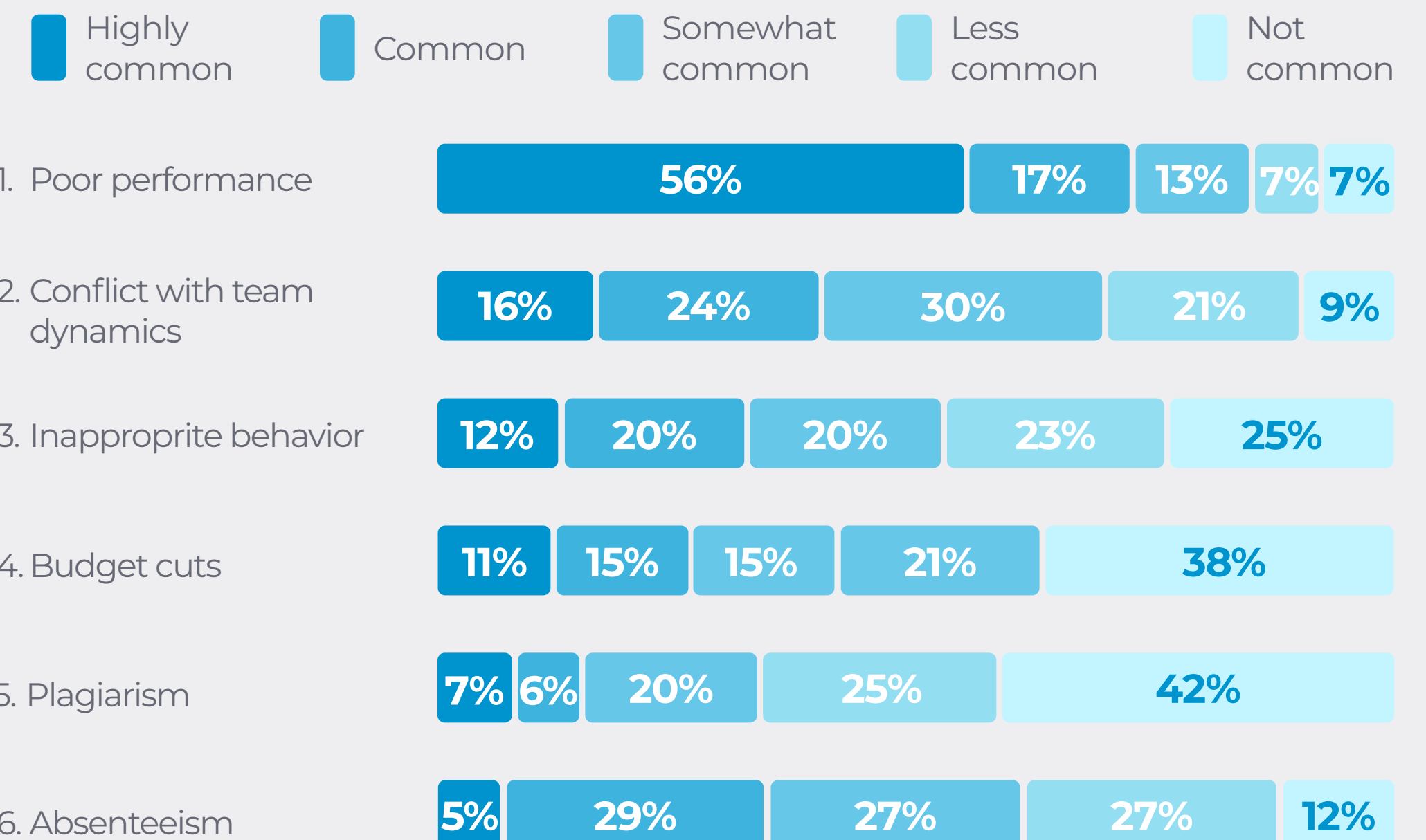
Our solution is to get TAs to interview EMs before a technical interview to help outline important engineering competencies at the start. Then, screen for hard skill competencies. After the initial assessment, both TAs and EMs can track candidates throughout the hiring process knowing they’re a fit.”

KEY OBSERVATION

Your engineering team is your best resource to improve your HR strategies. When in doubt, go straight to the source and ask your engineers about their hiring experience at your org.

Rank the most common reasons a software engineer is let go.

We asked 423 TA and HR professionals how common six factors are to the reasons why engineers are let go (from “highly common”, “common”, “somewhat common”, “less common” to “not common”). We display all responses to each factor, ranked in order of the percentage of TAs who said each factor was “highly common”.



FIGHTING TALENT TURNOVER — WHAT'S NEXT?

We wanted to understand how TAs can better manage expectations when hiring engineers, and fight talent turnover. The results weren't what we expected.



Engineering a great company culture.

Engagement strategies go far beyond the hiring (and even the onboarding) process. They're deeply embedded into your culture and need to be cemented week-in-week-out if you want to retain the talent you fought so strongly to get on board.

Talent acquisition is just the start.

Unfortunately, once engineers are hired, many are almost immediately disappointed. Only 62% of engineers said they received sufficient onboarding versus the 38% who said they didn't receive sufficient onboarding. To add to the pressure, 37% said they don't feel recognized for their work once hired.

Yes, we need to build talent acquisition strategies that entice new talent to interview with us and join our teams, but this is only the beginning, and engagement strategies need to extend *far* beyond the hire.

KEY OBSERVATION

The opportunity for improvement continues as close to 40% of engineers think their onboarding experience was not efficient enough.

Building a culture that withstands turnover.

Exemplary culture needs to start at the top, led by example. Over half of engineers say their team management has changed during their time with the current company. When engineers are continuously exposed to turnover, it normalizes it, and engineers no longer look at their current role as a long-term gain but more as a short-term springboard into the next.

If companies hope to retain *new* talent, they need to start by focussing on their *current* talent.

From 1 to 5 stars, how would you rate your employer's onboarding process? (Weighted average)

(1 star = Poor, 3 stars = Average, 5 stars = Perfect)

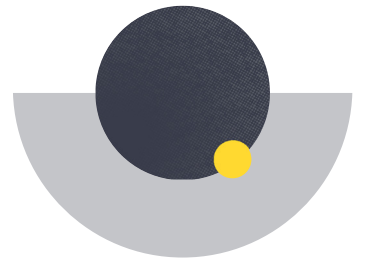


CREATING A CONSISTENT CULTURE IS KEY

“In an environment now where people don’t stay as long in their roles, creating a culture that withstands the coming and going of leaders and management is critical. You must instill a culture of learning, innovation, fairness, and flexibility into your company’s DNA. You need to make good qualities a constant for your organization, no matter who is in charge of different teams.”

— **Jason Medley, Chief People Officer at Codility.**





Closing thoughts: glass half full or half empty?

Are we in a crisis state, or are we surrounded by opportunities to build and nurture thriving cultures in tech?

“More than half” are doing just fine.

With a lot of questions on the table, more than half of the engineers we polled offered positive responses. A few highlights are 62% said they received positive onboarding, 63% said they feel recognized for their work, and 76% said they sometimes or always feel intellectually challenged.

These numbers certainly suggest that tech talent’s glass was half full as of early 2022. But our market environment has changed quickly — and as we head into 2023, perspectives have probably changed too.

There’s still plenty of space for growth.

What about that remaining percent?

Our survey found that TAs *need* to communicate with engineering managers to learn more about the roles and the soft skills needed *in addition* to hard skills assessments. This way, TAs are able to give candidates an accurate picture of the role without needing to be tech experts.

What’s more, **improvement in the hiring process only goes so far.** Ultimately, companies *also* need to look at retention if they’re hoping to build tech teams that last.

Engineers made it clear that contributions to innovation, intellectual challenges, and mentorship are elements key to their retention - and if you’re not keeping engineers on their toes, they’ll find those growth opportunities elsewhere.

How?

“Engineering managers should talk to their current (and potential) employees about what they want out of their whole career,” says Codility Engineering Manager, Nataliya Pasichnyk.

“Make it possible for engineers to see themselves with your company long term.”

This can be implemented with mentorship programs, and setting up a transparent collaboration culture between juniors and seniors from day one.

The conclusion

Hire fast *and* correct with the right tools and processes, but don’t forget to get qualitative feedback from hiring managers along the way. Plus, deliver what your talent needs and expects from their workplace. Unsure? Ask them.

It’s a double-pronged approach, demanding attention today to fill that glass up for tomorrow.

Lessons for tech companies looking to hire and retain engineers



If you want new engineers to stick around, you'll need to support them. Mentorship programs and healthy onboarding boot camps are the best way to go for junior developers.



Close down on your time to hire. Be prepared for salary negotiations and get those hiring flows running smoother to keep your candidates motivated.



Engineers need recognition to feel valued and stay engaged with their work. There are big opportunities to retain talent by finding ways you can show recognition.



Connect with engineering managers to better understand the soft skills they need in new hires. Let your tech handle skills assessments and bring technically vetted candidates to the table for soft skill screenings.



Ensure you're leading by example. Keep engineering managers around, and their team will follow suit. Let them go, and their team might jump ship with them.



Keep your engineers motivated with salaries, mission alignment, purpose, innovation, challenges, and enable them to do what they love: software development.

If you'd like to see how Codility can help you build a high performing engineering team, [contact us here for a product tour](#).



Understanding Your Hires: Must-Have Questions to ask Engineers in Your Next Technical Interview

Recruiting often emphasizes what candidates will get from their jobs, such as salary and benefits. While money is the top consideration for engineering candidates, they also care deeply about growing through contributing meaningful work. Yet, many feel disappointed with how their jobs deliver on this front.

Here are some questions to help talent acquisition specialists identify candidates that match the needs of specific engineering teams — and vice versa. These questions will open the floor up to conversations that will help you to better manage candidate expectations.

Questions to ask engineering managers at your organization:

- What soft skills do you care about?
- What longer-term career opportunities can this job offer?
- What makes your team unique within the company?
- What will engineers learn from this role?
- How do we foster an inclusive environment where employees from underrepresented backgrounds can thrive?
- How do we retain diverse talent?

Questions to ask engineering candidates:

Non-technical questions:

- What sort of challenge are you looking for?
- What do you want to contribute to your role?
- How do you envision your career unfolding?
- What career development opportunities are you seeking?
- What are your expectations for co-operation with your engineering manager?
- How do you want to develop further?
(eg. technical/soft/leadership or anything else or in between.)

Technical questions:

- What skills can you bring to this position?
- What's the biggest [technical] challenge you've faced in your work, and how did you solve it?
- What coding language are you most and least comfortable with?
- How would you explain our product to someone not from the IT world?
- Are you passionate about any tech projects outside of your day-to-day work?
- What challenges do you expect to face in our company?
- Explain your research process when designing new software.
- How do you make sure you deliver high-quality code? Do you use any tools?
- Who was the leader that helped you most in your career? How?
- What's the first thing you would do in this position?
Tell me about a technical project you would like to implement here.

Want to assess the skills of tech hires in a valid and accurate way
– all while providing a great candidate experience?

[Click here to see how Codility can help.](#)





Codility_

TECH HIRING & RETENTION
REPORT 2023

Thank you!