Overcome Talent Shortages by Building Diverse, Equitable and Inclusive Software Engineering Teams

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Initiatives: Software Engineering Strategies

Software engineering leaders report that hiring, developing and retaining talent is their toughest challenge. To build teams in today’s environment, software engineering leaders must widen their talent search, create an inclusive team culture and sustain DEI initiatives in their organizations.

Overview

Key Findings

- Hiring, developing and retaining talent is the top challenge faced by software engineering leaders according to Gartner's 2021 Software Engineering Leaders Survey. Today's volatile, uncertain, complex and ambiguous (VUCA) environment requires teams of highly-skilled software engineers.

- The 2021 Software Engineering Leaders Survey also found that building cohesive teams that are dispersed and demographically diverse is a significant challenge that software engineering leaders must overcome. Without cohesion, teams will not be fully productive in delivering software.

- Though increasing numbers of organizations have created diversity, equity and inclusion (DEI) programs, not all organizations provide this support for diverse software engineering teams.

Recommendations

Software engineering leaders should:

- Reach out across geographies and demographic groups to widen the search for viable candidates — hiring for outcomes rather than specific expertise.
Introduction

While top software engineering talent has always been scarce, the pandemic has compounded the challenge of attracting and retaining talented people. Software engineering leaders report that hiring, developing, and retaining talent is their top challenge. Gartner’s Analysis of Software Engineering Talent Market Benchmarks 2Q21 reveals that the number of job postings for software engineering roles has increased by 40% since 1Q20, and 20% of software engineering employees are actively looking for jobs. For many software engineers, expectations have also changed — many wish to continue working from home and few want to return to an office on a full-time basis.

As a result, geographically-dispersed software engineering teams will become the norm. Instead of colocated teams, most organizations will move to a virtual-first, hybrid work mode. In order to stay competitive in the talent market, software engineering leaders must build a team culture that is inclusive across geographies, ethnicities, first languages, religions and diverse demographic groups. The following quote by John Proaño sums things up neatly.

“To attract and retain talent in the years ahead, employers will want to create an appealing employee value proposition that incorporates ongoing learning, flexible and engaging work, and competitive benefits tailored to each employee’s unique needs and concerns.”

— John Proaño, Director, Participant Engagement, Prudential
Software engineering leaders can overcome talent shortages by building effective, diverse, multicultural teams across geographies (as illustrated in Figure 1). Software engineering leaders can use this research to inform them as they:

- Widen the search for talent.
- Create an inclusive team culture.
- Sustain DEI initiatives.

**Figure 1: Overcome Talent Shortages by Building Diverse and Inclusive Software Engineering Teams**

**Overcome Talent Shortages by Building Diverse and Inclusive Software Engineering Teams**

<table>
<thead>
<tr>
<th>Widen the Search for Talent</th>
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<tbody>
<tr>
<td>• Recognize that great people are everywhere</td>
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<tr>
<td>• Foster demographic diversity</td>
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<td>• Foster psychological safety</td>
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<table>
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<tr>
<th>Sustain DEI Engagement</th>
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<tr>
<td>• Actively engage in DEI initiatives</td>
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<tr>
<td>• Encourage team members to participate</td>
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<tr>
<td>• If no formal DEI organization exists, start a DEI community</td>
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</tbody>
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Source: Gartner

Note: DEI = diversity, equity and inclusion

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**Analysis**

**Widen the Search for Talent**

Software engineering leaders will find it easier to find and interview diverse candidates if they broaden their talent search. Talented people are everywhere, not just in the commercial centers. In response to the pandemic, nearly every IT organization developed the capability to support remote work and manage distributed teams. As a result, software engineering leaders now have access to greater diversity of expertise outside their local area. Increasing both the geographic and demographic reach of the talent search will further improve the likelihood of finding viable candidates:
Diversity is often a natural byproduct of this approach, as people who are distributed across locations tend to have different individual characteristics, values, beliefs, experiences, backgrounds, preferences and behaviors. That synergy is potentially powerful, though not all cultures and nations are equally receptive to diversity.  

“Across Europe, North America and Australia, there is strong consensus that diversity has increased in their countries. And for the most part, that diversity is welcomed. Two exceptions are Greece, where 62% oppose a more diverse country, and to a lesser extent Italy, where 45% oppose diversity. But in the United Kingdom, Canada, the United States, Australia and Spain, roughly six-in-ten say they are in favor of more diversity.”

— A Changing World: Global Views on Diversity, Gender Equality, Family Life and the Importance of Religion, Pew Research Center

When building an effective team across geographies and demographics, software engineering leaders should prioritize:

- **Outcomes** — Instead of hiring for specific technical skills, hire people based on their ability to generate similar outcomes. While specific skills may be scarce, many people have the aptitude to learn them. In job descriptions, focus on the expected outcomes of the role as opposed to competencies. Software engineering leaders should seek people who have a track record of success and who have proven their ability to effectively learn and share knowledge. Relax degree requirements and identify adjacent degrees and adjacent skill sets. Focus on recruiting talented people who demonstrate the interest and capacity to learn new skills. Connect them with experienced software engineers and facilitate training for specific skills as needed.
It is critical for software engineering leaders to build a team of demographically-diverse people who excel at collaborating, who are socially perceptive and who have a track record of success. With the right people in place, software engineering leaders can focus on training and developing technical skills within the team.

**Create an Inclusive Team Culture**

Diverse teams will not succeed unless everyone feels like part of the team. To foster an inclusive environment, software engineering leaders should build trust and belonging and treat employees equitably.

**Build Trust and Belonging**

Team members who trust each other and feel they belong will be more willing to communicate, learn, take risks and collaborate — boosting the performance of the team. The following quote comes from The Wharton School’s blog, Knowledge@Wharton: 8
“Increasingly, companies are adopting the stance that diversity and inclusion isn’t enough: there must also be a sense of belonging for all employees.”

To build trust and belonging, software engineering leaders should:

- **Schedule regular check-ins and be transparent** — Meet with each software engineer individually to provide constructive and positive feedback on their performance. Ask them to celebrate their successes and identify areas where you can help them improve. Share feedback and work-related information consistently and completely. Withholding information will erode trust.

- **Foster psychological safety** — Communicate the value of taking interpersonal risks and encourage team members to address issues (not avoid them). When team members feel comfortable taking interpersonal risks, they are more willing to speak up and share their viewpoints (see Quick Answer: How Do We Build Psychological Safety in Our Software Engineering Teams?).

- **Facilitate professional and personal growth** — Actively listen to each team member's professional and personal aspirations, and connect them with the people and resources they need to work toward these goals. Demonstrate empathy and flexibility for team members experiencing personal challenges (see Quick Answer: How Do Connector Managers Develop Exceptional Software Engineering Talent?).

- **Create shared team goals** — Lead a workshop with the team to create shared, team-level goals. These shared objectives will provide a common sense of purpose and encourage team members to collaborate and hold each other accountable.

- **Appreciate cultural differences** — Lead by example. Use inclusive language that is considerate of all people and cultures. Do not tolerate any derogatory comments about gender, race, nationality, sexual orientation, ethnicity, disability or age.
Cultivate a deeper understanding and respect across cultures — Encourage team members to share personal stories that promote a better understanding of their culture. Acknowledge all public and religious holidays that team members observe. When scheduling meetings, be considerate of the time zones in which all team members are based. Celebrate successes — Provide public recognition when the team performs well. This includes both celebrating individual accolades from managers and peers, and praising the team for its collective performance.

Promote Equity Practices

Equity is also key to bridging the gap between diversity and inclusion. To develop equity, software engineering leaders must recognize that different people experience unique advantages and barriers. We do not all start from the same place.

Moreover, equity is not necessarily equality. Equity is about providing equal access to opportunity, information and resources by identifying and eliminating unfair biases, stereotypes or barriers that may inadvertently exclude underrepresented employees.

Figure 2 shows an example of the difference between unequal, equal and equitable treatment of three new software engineer joinees (also see Understanding What Equity Means in IT for CIOs).
Equity in pay is one of the top challenges, especially across gender and racial groups. However, pay and benefits are only one focus area for equity. Software engineering leaders should also focus on implementing practices and processes that promote equity for all people in terms of:

- Recruiting, interviewing and selection
- Onboarding, training and development
- Access to resources
- Fair treatment
- Task assignment
- Feedback and recognition
Sustain DEI Initiatives

Building trust, belonging and equity within the team is an active process that requires regular engagement from team members and broad organizational support. Organizations that are most successful at fostering DEI focus on making systemic changes. Going through the motions will not be sufficient.

According to the Society for Human Resource Management, real change happens when:

- Leaders believe diversity is good for business.
- Diversity, equity and inclusion are in the organization's ecosystem, including partners, suppliers and customers.
- The CEO sets a vision for diversity, equity and inclusion and frequently communicates progress.

Board-level awareness is pervasive now:

- From 2018 to 2020, earnings call transcripts saw a 751% increase in references to diversity, equity and inclusion.
- Ninety-six percent of CEOs say that DEI is critical. Of those CEOs, more than 85% agreed to undertake all DEI-related initiatives within one year.
- Ninety-eight percent of large U.S. employers have a training program dedicated to racial equity.

In our 2021 Gartner Diversity, Equity and Inclusion Functional Benchmarking Survey, 90% of diversity and inclusion leaders reported that their organization has at least one ERG.

To support an inclusive team culture over the long term, encourage software engineers to participate in relevant employee resource groups that align with their individual identities. There are several ways in which ERG participation can help with team building:

- Team members can connect with peers who have similar challenges.
- Team members can learn how best to articulate their issues.
What is an ERG?

An employee resource group (ERG) is a volunteer-driven DEI initiative sponsored by an organization to provide a space for team members with shared identities, purposes or backgrounds. Most ERGs center around an identity that may be underrepresented in the workforce or leadership (such as groups for women, LGBTQ+ people, people of color or veterans).

If the organization does not offer an ERG, software engineering leaders should create a community of interest (COI) for their teams to discuss DEI topics. The COI can also serve as a catalyst for forming an ERG across the organization. ERGs are essential for developing talent from underrepresented groups in preparation for leadership roles in the organization.

One of the primary goals for the COI would be to track DEI metrics that demonstrate tangible progress in creating a more diverse software engineering organization. Partner with the human resources organization to monitor improvements. For example, track the percentage of people in various underrepresented groups who received a promotion or have advanced in their careers during the past year. Identify any inequities across groups and prioritize areas for corrective action. Use these percentages as a baseline for future measurement. In addition to career advancement, measure outcomes across the full range of equity practices outlined in this research.

By encouraging participation in ERGs and measuring trends in DEI outcomes, software engineering leaders will effectively complement their recruiting and training practices with support for DEI strategy.

Evidence

1 Gartner’s 2021 Software Engineering Leaders Survey was conducted to understand the challenges and responsibilities of software engineering leaders. The research was conducted online from April through June 2021 among 314 respondents from North America (49%), Western Europe (33%) and APAC (18%).
Respondents were screened to be responsible for at least one team of software engineers at organizations of over $20M USD in worldwide revenue across organizations from all industries except construction, natural resources, energy, some manufacturing subindustries, local or regional government and wholesale.

Results of this study reflect the sentiments of the respondents and companies participating in this survey, not the market as a whole.

2 Data comes from:

- The 2Q21 Gartner Global Labor Market Survey of 18,001 employees from 40 countries, including 1,852 IT employees and 349 software engineering employees.
- Gartner TalentNeuron, which is a labor market intelligence solution combining real-time data from job postings, censuses and government statistical bureaus with expert research and advice.

For more information, see Software Engineering Talent Market Benchmarks: 2Q21.

3 Data comes from the 2021 Gartner Global Labor Market Survey. The 1Q21 survey was based on responses from 18,015 employees globally, including 1,836 employees in the IT function. Responses were collected monthly across 40 different countries in 15 languages and were then aggregated to generate quarterly findings. There are no statistically significant differences in the sample composition across the three months. For more information, see IT Workforce Report 1Q21: Emerging Labor Market Optimism and Implications.


6 Thomas Malone on Building Smarter Teams, Strategy+business.

7 Diverse Teams Feel Less Comfortable — and That's Why They Perform Better, HBR.

8 Beyond Diversity: How Firms Are Cultivating a Sense of Belonging, Knowledge@Wharton.

10 Report: Most Companies Are 'Going Through the Motions' of DE&I, SHRM.

11 How to Bring ESG Into the Quarterly Earnings Call, MIT Sloan Management Review.


13 The Corporate Racial Equity Tracker, JUST Capital.

14 2021 Gartner Diversity, Equity and Inclusion Functional Benchmarking Survey. The survey is a global survey of 39 D&I leaders conducted from 27 October through 14 December 2020. We collected survey responses from heads of diversity and inclusion to understand how organizations are designing and managing their diversity and inclusion functions, centers of excellence (COEs) and initiatives.

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