

# How the Pandemic Has Impacted Job Prospects for Software Developers

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As we've noted before, tech talent management was already undergoing major changes when the COVID-19 pandemic hit.

During major upheavals like a pandemic or economic downturn, software developers tend to feel a little more secure in their jobs than many others, but the particular conditions that emerged in 2020 have created new challenges in dev talent management.

Here is an overview of what it means to recruit and retain top software developers right now, and how those strategies can align with an organization's overall strategy.

## Developers Are Working 'as Hard as Ever' Right Now

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In the first weeks of the COVID-19 pandemic, work slowed to a halt for many people. Not for software developers.

James Kobielus, Research Director and Lead Analyst at Futurum Research, writes that while product launches may have been put on hold, production continues: "Many software vendors I've spoken to during the past few months say that their locked-down coders are working as hard as ever. If anything, this current crisis may be the tipping point in the advent of a new normal for software development practices."

That new normal includes a wider embrace of remote-work arrangements for developers, who increasingly expect such flexibility in their employment. More on that in a moment.

For now, it's worth focusing on how the pandemic and shelter-at-home orders forced many consumers and professionals to move more of their lives online. Zoom chats, VPNs, grocery delivery apps, streaming content — developers help build that digital infrastructure. And as demand for such tools grows, so does the demand for talented developers.

It's no surprise, then, that the 2020 Stack Overflow developer survey found DevOps specialists and site reliability engineers are still two of the highest-paid roles in this field. "In an era of constant connectivity, users expect their apps and services to be available any time, and any place," Stack Overflow's Ben Popper writes.

"And remember, this survey was run before widespread COVID-19 lockdowns — we'd expect DevOps to be even more important in a world where many teams have suddenly gone completely remote."



## What Do Employers Need From Their Developers?

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Certainly, organizations need developers who can build upon their existing digital capabilities to keep pace with the larger digitizations happening in society.

But let's take a step back for a bigger-picture view. It's this perspective that will help HR executives anticipate and strategize for future developers in talent management.

### Knowledge of Artificial Intelligence

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A useful starting point would be companies' tech budgets. [Zeus Kerravala](#), Founder and Principal Analyst at ZK Research, points out how many companies that were heavily invested in AI doubled down on those investments in 2020.

"Executives see AI as invaluable to their business success," Kerravala writes, citing Appen Limited's State of AI and Machine Learning Report.

"This is true for companies of all sizes across different industries. For 27 percent of survey respondents, enterprise AI budgets have exceeded \$1M, while 10 percent said their AI budget is more than \$5M. These numbers are expected to continue rising steeply as businesses adopt AI on a global scale."

For HR executives, then, recruitment and training initiatives should take place in this context. Companies will increasingly need developers with AI skills and experience.

### An Understanding of Business Context

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Top developers should also be able to step back, as we are doing here, and put their work into perspective. Understanding the business context in which development takes place can be a major driver of value.

Phil Alves, Founder and CEO of DevSquad, says this is something that separates merely good developers from great developers. Great developers “will have taken the time to learn about the foundations of how businesses work, including revenue, profit, strategies of other departments, and the bottlenecks that can arise.

“Using this expertise alongside their logical approach that’s born from learning to code, top-notch developers propose solutions to company-wide problems and work with other departments to drive business results. They have an excellent understanding of the role of their own duties within the organization and how they contribute toward overall strategy.”

This understanding also helps illuminate a leadership career path for some developers. A technical lead, for example, must have this kind of perspective, Semi Koen writes at the Towards Data Science blog.

## **A Desire to Keep Learning**

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Even more paths open up to developers who embrace the notion of continuous learning.

Cisco’s Prakash Sripathy and co-authors talk about this in the context of that company’s digitization of development, which essentially describes the tactical and practical steps Cisco is taking to ensure its developers have easy access to the big-picture context in which they’re working.

“Enabling a solution view of a project—rather than narrow silos of tasks—also expands creativity and enhances opportunities to learn and upskill, opening career paths,” Sripathy et al. write.

“The cross-pollination of expertise makes everyone involved in solution development more knowledgeable and more responsive to changes in customer requirements. In turn everyone gains a more satisfying work experience and a chance to expand their career.”

In this model of talent development, training is continuous and ongoing because product development lifecycles get broken down, and everyone has visibility into how other teams work. With this un-siloed approach to development, then, it’s easier to identify skills gaps, which informs both hiring and training.

This means that recruitment should also value people who demonstrate a commitment to continuous learning. In fact, TalentCulture’s Jeff Mazur recommends looking for traits like broader life experience and tenacity in a candidate, particularly when that candidate comes from a coding bootcamp or is self-taught rather than a highly credentialed university graduate.



## What Do Devs Seek From Their Employers?

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Let's return to the Stack Overflow survey to get the developer's perspective on employment.

Citing that survey, TechRepublic's [Brandon Vigliarolo](#) reports that developers care about three things in particular regarding their working conditions:

- **Coding languages.** The survey found that the top three languages among the 65,000 devs surveyed were Rust, TypeScript, and Python. In fact, the two biggest reasons a developer leaves a position are better pay and the desire to work with new technologies, Vigliarolo writes.
- **Company culture.** Devs care about the office environments — in-person and remote — in which they will be working.
- **Schedule flexibility.** **Many developers have spent the past decade working remotely. For intensely focused work like software development, the ability to control when and where work gets done is a major benefit.**

To that third point, many software developers have been talking about remote work as a “new normal” long before COVID-19. In July 2019, TechRepublic's [Macy Bayern](#) reported on a survey of 4,500 developers in which 43 percent of respondents called remote work a must-have.

## Building a Dev Team That Drives Business Value

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What employers need and what employees want can fall into alignment with the right management. Crucially, that alignment can be a driver of business value, so there is every incentive to get this right.

Let's start with a concept that McKinsey calls "developer velocity." This happens when an environment is created in which software developers are empowered to innovate without friction or roadblocks, McKinsey researchers [Shivam Srivastava](#), [Kartik Trehan](#), [Dilip Wagle](#), and [Jane Wang](#) write.

That environment depends on several factors, but in general the four most important factors are:

- **Tools.** Does the organization have the right tools for collaboration, for planning work, and for DevOps?
- **Product management.** Can product managers and their teams hit their targets?
- **Culture.** Does the organization promote a culture in which people feel psychologically safe to share ideas, empowered to share those ideas, and encouraged to continue learning?
- **Talent management. Does the organization offer the right incentives and have the capacity to recruit, hire, and retain top talent?**

Notice how this aligns with the wants of developers, who are primarily concerned with what tools they will use, what culture they will be working in, and what flexibility they have in their work.

Granted, tools and product management are production-side questions, but the second two factors, culture and talent management, fall under the purview of HR.

- It's up to HR to foster a culture in which developers can thrive, and then to communicate that culture when recruiting and hiring.
- It's up to HR to build the talent-management capabilities that allow developers flexibility in their work.

When these tools and capabilities are in place, dev teams are poised to not simply succeed but to create products that impact an organization's bottom line.

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