BairesDev

Dev Barometer.

A New Generation of AI-Native Developers

The Impact of AI on
Software Developers and
What to Expect in 2026

WHITE PAPER

2025

Executive Summary

During the last couple of years, a few important tech leaders considered the idea that AI could replace a substantial amount of software engineers. Some even reorganized teams around automation, betting that generative systems would take over much of the work. Those moves sent ripples of uncertainty through the industry, fueling fears that AI would shrink rather than strengthen the workforce.

Our findings point to a different reality. The **Dev Barometer Q4 2025** reveals how the world's most technical professionals are turning disruption into opportunity, evolving from code producers to system designers and AI orchestrators.

The Dev Barometer is BairesDev's quarterly research initiative capturing the real-world pulse of senior software engineers and project managers across global teams. It tracks how technology, talent, and teams evolve to help leaders grasp AI's impact. The Q3 2025 edition showed AI is boosting developers' productivity and skills faster than companies can adapt, while the Q4 2025 edition examines how it has reshaped developers' roles in 2025 and may redefine software work for 2026.

The result is a profession evolving in real time. AI is driving what may be the biggest productivity leap in years and pushing developers to reinvent their skills faster than organizations can train them. Many now see it as a gateway to new career paths in design, orchestration, and integration. Business leaders and companies that view AI as a replacement strategy may be about to miss true potential as a tool for reinvention.

Based on 1,600 responses from software developers and project managers from Fortune 500 and SMBs, this white paper explores how AI is transforming software work and reshaping the future of the digital workforce. If developers are the first AI-native workforce, every knowledge worker may soon follow.

Developers' Expectations for 2026

Roles & Responsibilities

65% believe their role will be redefined.

—Of that group, **74%** will spend less time coding and more time designing solutions.

61% will focus on integrating AI-generated code.

50% foresee greater emphasis on architecture and strategy.

Organization Design

58% foresee leaner teams as automation reduces entry-level tasks.

Careers, Specialties & Opportunities

63% expect new career paths to emerge.

88% see AI as a gateway to new career paths.

6 in 10 senior devs predict AI will create and boost new specialties, such as AI solution designer, prompt engineer, and system integrator.

Growing Areas

67% cite AI & Machine Learning as the fastest-growing fields in 2026. Data Engineering follows with **46%** and Cybersecurity with **45%** of responses.

Top Skills

Developers consider these as learning priorities for Q1, 2026:

33% GenAI, AI/ML
15% Cloud, DevOps & Automation
13% Leadership & Problem Solving

Business Impact

87% say generative AI will disrupt business models.

Upskilling will be a critical priority for organizations, as devs report self-directed learning and PMs report only **3%** of companies have embedded AI at their core.

Dev Barometer, conducted in October 2025 by BairesDev. Respondent base = 501 developers and 19 project managers managing 92 software development projects.

AI is Furthering Tech Skills for 4 in every 5 Developers

Few software developers felt secure in their positions at the start of 2025. This was the result of a challenging job market, but mostly the bold predictions that AI would be able to do their jobs faster and cheaper. The conversation across online forums, tech events, and team chats revolved around one question: would AI make coding obsolete?

As we wrap up an eventful 2025, the question has been reframed for many. Developers weren't replaced but are finding ways to enhance their work with AI. They are among the first professionals building a real human–AI feedback loop, using generative systems not as substitutes but as collaborators. A new question emerged: How can developers leverage AI to amplify their work, their judgment, and their impact?

To answer this question, we looked at the immediate benefits that software developers report. Nearly 9 in 10 developers say AI directly benefits their day-to-day work, improving coding speed, continuous learning, and productivity. The Dev Barometer Q4 reported that 74% of developers say AI coding tools have strengthened their technical skills, showing that the technology is expanding rather than replacing core expertise.

Nearly

9 in 10

(88%) of developers say they have personally experienced benefits from using AI tools in their work.

Dev Barometer, conducted in July 2025 by BairesDev. Respondent base = 1,129 developers and 50 project managers managing 125 software development projects.

74%

Individuals report AI enhanced skills

AI coding tools boost technical abilities.

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Beyond technical growth, AI is also reshaping how developers experience work. According to the Dev Barometer Q3 2025, they save an average of 7.3 hours per week with AI-assisted coding. Our Q4 survey found that half of the respondents even credit AI with improving their work–life balance. This is a sign that automation, when applied thoughtfully, can enhance rather than erode the human side of work.

Looking ahead, 7 out of 10 developers believe their role will be redefined, not eliminated, within the next year. Far from fearing replacement, they are preparing for transformation, positioning themselves at the center of the next era of AI-driven work.

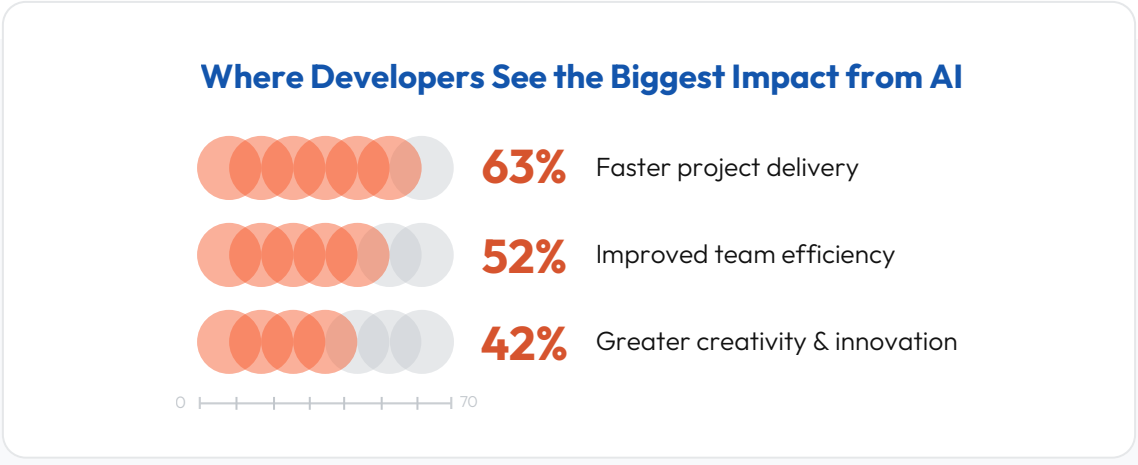
Leadership Implication:
Foster a culture of continuous learning that empowers teams to keep pace with the technology they use.

AI Accelerates Delivery and Sparks Innovation

Developers' day-to-day work experienced unprecedented change in 2025. While most developers still spend the bulk of their time writing code (48%), debugging (42%), and planning or documenting (35%), they're increasingly investing that time in higher-value activities like auditing, orchestration, and design.

Their responsibilities now include supervising AI systems, refining prompts, and validating outputs. This is proof that human judgment remains essential for context, quality, and oversight as AI becomes more deeply embedded in software creation.

Despite the challenges and new tasks that come with AI integration, many developers are moving faster through their pipelines: 63% say AI has accelerated project delivery, and 52% report improved efficiency across teams. In fact, 42% attribute AI to greater creativity and innovation, an early sign that intelligent automation is unlocking higher-order problem-solving rather than replacing it.



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According to the Q3 survey, 76% of developers say up to 50% of their code is now AI-assisted, averaging 23.5% of total output. AI handles syntax and boilerplate, while humans focus on architecture, logic, and problem-solving. The more they delegate, the more they're pushed toward design thinking and critical evaluation.

Developers are also reinvesting their time. On average, they now spend four hours a week learning new skills, ranging from prompt engineering to AI tool optimization. This continuous cycle of using AI tools, learning from them, and refining their work is accelerating growth across their field. It mirrors a wider global trend: according to the AI Workforce Consortium, AI-related skills, like prompt engineering and LLM adaptation, are among the fastest-growing worldwide, alongside human skills such as collaboration and leadership.

Leadership Implication:
Enable teams to treat AI as a creative partner, unlocking innovation beyond productivity gains.

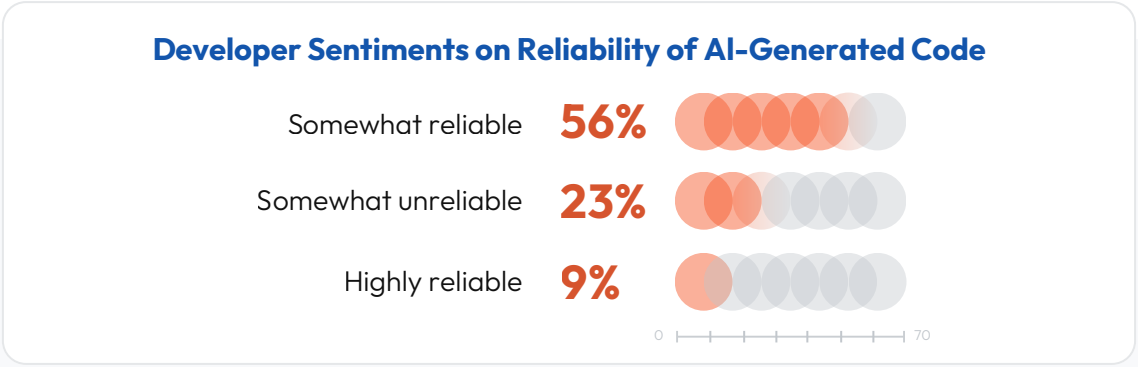
AI's "Somewhat Reliable" Code Still Delivers Productivity Gains

In 2025, AI adoption among tech teams matured into structured workflows. Developers began acting not only as users, but as testers, validators, and collaborators of generative systems inside organizations. They are using AI and shaping how it's used.

That collaboration is built on both trust and skepticism, as well as iteration. Trust in AI-generated or AI-assisted code varies widely depending on the programming language, industry, and type of work developers do. Key factors include the technologies they use, the field they operate in, and their experience with AI tools.

With that in mind, our survey reported that on average, more than half (56%) of developers describe AI-generated code as "somewhat reliable," meaning AI's output is usable but requires careful editing. Twenty-three percent find it somewhat unreliable, and just 9% trust it enough to use it as-is.

Even as developers see gains in productivity, they recognize trade-offs: 36% report higher code quality thanks to AI-assisted development, while 22% acknowledge new risks and complexity introduced by its use. The result is a healthy tension, one that drives better outcomes. Developers keep AI grounded in human judgment, ensuring that speed doesn't come at the expense of security, quality, or ethics.



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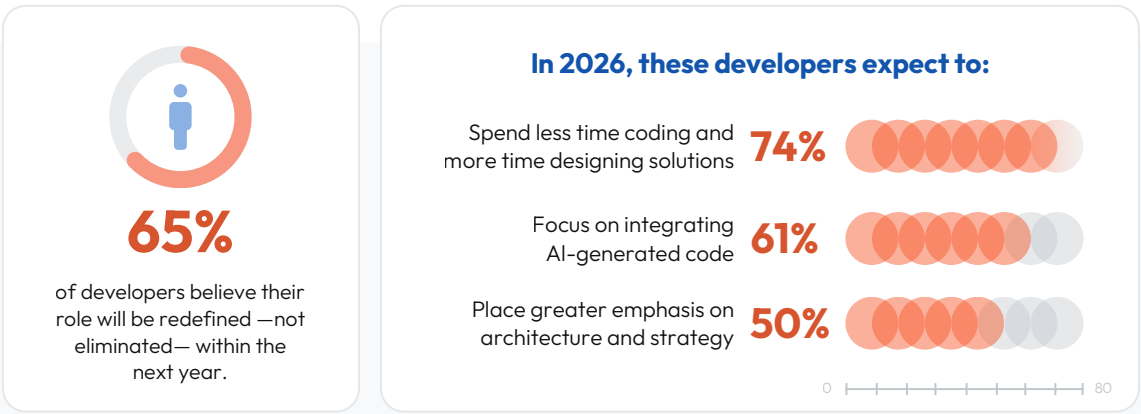
Developers are also finding personal reward in the process. 76% say AI makes their work more fulfilling, though nearly two-thirds worry about falling behind if they don't upskill. They now dedicate roughly four hours per week to AI-related learning, not because they're told to, but because they recognize the direction the industry is heading and the impact that artificial intelligence will have on their role's expectations.

This shift is about agency as much as automation. Developers aren't waiting for top-down reskilling initiatives. They're teaching themselves, experimenting, and contributing to a new operational model where human reasoning guides machine intelligence.

Leadership Implication:
Establish clear standards for oversight to ensure faster delivery never compromises quality or ethics.

65% of Developers Expect Their Roles To Be Redefined in 2026

Heading into 2026, the developer's evolution is becoming increasingly visible. 65% of developers believe their role will be redefined, not eliminated, within the next year. The anxiety of being "replaced by AI" has transformed into anticipation to see the evolution of the developer role. Of those 65%, 74% expect to spend less time coding and more time designing solutions, 61% expect to focus on integrating AI-generated code, and 50% foresee greater emphasis on architecture and strategy. In short, developers are becoming the strategists and system designers of a new AI-enabled enterprise.



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That optimism is already translating into opportunity. Most developers (88%) see AI as a gateway to new career paths, signaling a diversification of roles that's paving the way for deeper specialization across the field.

The survey also points to a structural change within teams: 58% of respondents foresee smaller, leaner groups as automation reduces entry-level tasks. When it comes to early-career development jobs, 24% of developers expect these roles to shift in quality, requiring stronger analytical and AI-assisted coding skills, while 19% predict a decline in traditional junior positions.

This change doesn't necessarily mean fewer opportunities, as 63% expect new career paths to emerge outside traditional developer roles, and six in ten senior developers believe AI will create entirely new specialties in 2026.

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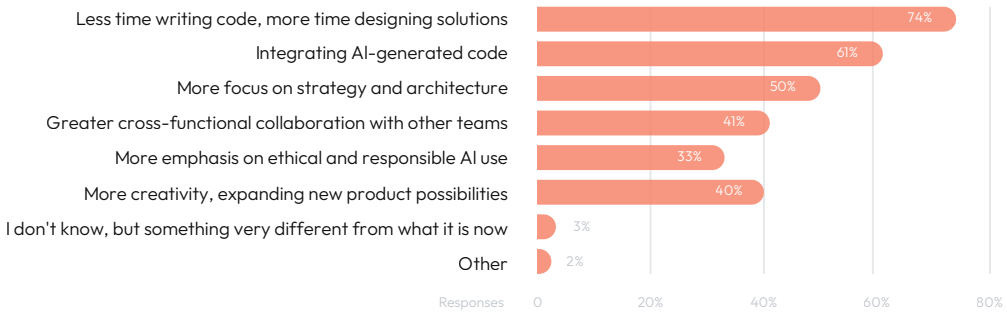
Developers are envisioning roles like **AI solution designer, prompt engineer, and system integrator** that blend creativity, analytical skill, and technical judgment.

How Will the Role of Software Engineers Evolve in 2026?



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To prepare for these shifts, developers are prioritizing skills that reflect the hybrid nature of their future roles. The top learning areas according to devs for the first quarter of 2026 include generative AI and machine learning (33%), cloud, DevOps and automation (15%) and human-centered capabilities like leadership and problem-solving (13%). These priorities highlight a growing demand for talent that can bridge deep technical expertise with strategic thinking and human skills.

"At the start of the year, many asked how AI would change developers' roles. It's clear now: developers are the first professionals to reinvent their jobs in real time. They're using AI to boost productivity, learn faster, and drive innovation. What's happening in software today will soon happen across every knowledge industry: people will think bigger, break old limits, and redefine what productivity means."

Nacho De Marco, BairesDev's CEO

Leadership Implication:
Redefine career paths and talent structures to support roles focused on orchestration, integration, and design.

One in Three Developers Report Career Growth Thanks to AI

The change in the anatomy of developer roles is redefining business performance. Developers' collaboration with AI is emerging as a promising driver of competitiveness. Eighty-seven percent of developers believe generative AI will disrupt business models within a year, highlighting how closely they track and anticipate the pace of transformation.

With accelerated project delivery and increased team efficiency, developers are now turning their attention to new milestones. The Q4 survey revealed that in 2025, 37% of developers expanded career opportunities within or beyond their current companies, while 32% gained more visibility or recognition due to AI's impact.

Economists project AI could boost U.S. productivity and GDP by 1.5% by 2035, gains that depend on workers learning to use these tools effectively. This is why 77% of employers now prioritize reskilling their workforce for AI collaboration.

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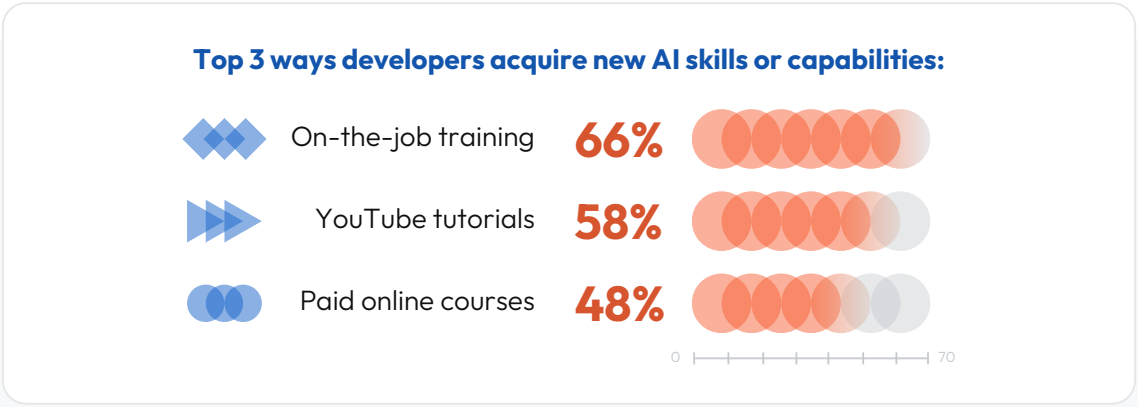
Yet this transformation remains uneven. As the Q3 survey revealed, only 15% of project managers say their organizations have structured AI upskilling programs, and 64% admit their projects are still in the early stages of AI maturity. While developers are learning quickly and using AI to grow their capabilities, most companies haven't built the structure to keep pace.

That gap is where the opportunity lies. Organizations that invest in upskilling and modernizing their AI infrastructure turn individual experimentation into collective capability. Empowering developers to lead these efforts brings agility and morale, while those that don't risk falling behind as the talent powering AI continues to advance on its own.

Developers sit at the front line of business demands and technology delivery. They must keep pace with new advancements and understand their impact on products. That's why developer-led adoption and upskilling matter. Many are already taking the initiative. The Q3 Dev Barometer found that most developers learn on the job (66%) or through platforms like YouTube (58%), showing that self-learning is driving AI proficiency faster than institutionalized programs. Still, these initiatives need guardrails to stay aligned with business, security, and ethical standards.



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As a result, developers are increasingly acting as strategic copilots for innovation. Their ability to test, refine, and deploy AI directly influences speed-to-market, cost efficiency, and creativity. AI maturity is no longer a top-down initiative. It's taking shape from the ground floor of development.

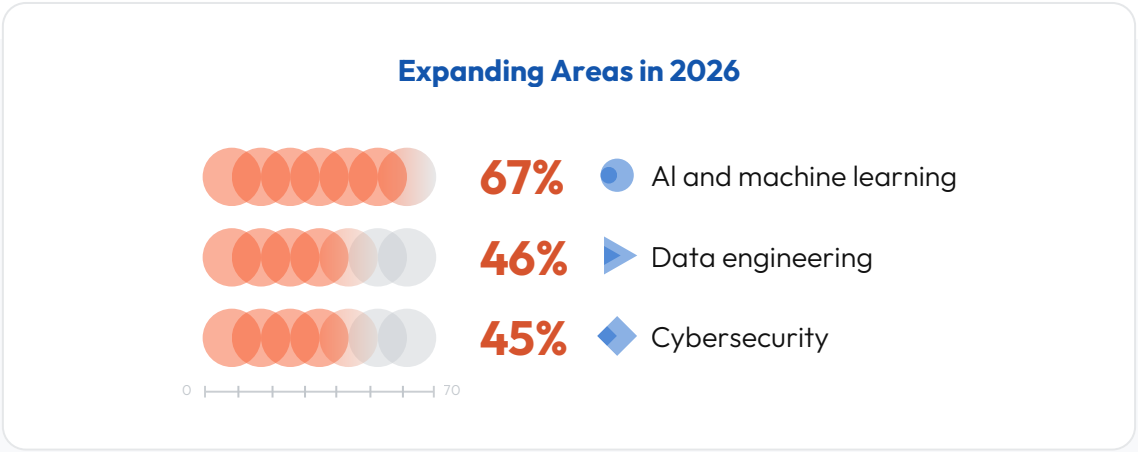
Leadership Implication:
Invest in structured development programs that channel individual upskilling into measurable business value.

Highly-Skilled Workers Will Follow Developers' Lead in AI Collaboration

What's happening to developers today is a preview of what's coming for all highly-skilled workers. The same feedback loops, skill shifts, and ethical questions reshaping coding are beginning to reach designers, analysts, marketers, and even executives.

Developers are simply first because their work is the most digitized and, by the nature of their profession, they're more comfortable experimenting with new technologies and understanding their potential. As a result, their collaboration with AI has been remarkably natural. It's shifting value creation from manual execution to more human layers of innovation, such as design, oversight, and problem-solving.

As part of this evolution, developers expect two major areas to define 2026: AI and machine learning, cited by 67% as the fastest-growing fields, followed by data engineering (46%) and cybersecurity (45%). These focus areas show that the next wave of growth will come from understanding and guiding AI systems.



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Developers have long led the way in redefining how work gets done. Even before 2019, they proved complex projects could thrive with distributed teams. In our Q3 survey, 80% said remote work enabled their career growth in tech. This shows how distribution expanded opportunity and set the foundation for accessing talent everywhere, a principle that now guides how AI-era teams will evolve.
Developers are fast becoming a prototype for what the future workforce might look like: AI-augmented, globally distributed, and creativity-driven. Their evolution in 2025 suggests that when talent and technology learn together, work may become more human, not less.

Leadership Implication:
Replicate developers' adaptive approach to AI across other functions to accelerate workforce transformation.

Developers Are Leading the Way Toward an AI-Native Workforce

In a year defined by intelligent transformation and the rise of AI-native talent, developers are showing that progress happens when human expertise and AI evolve together. What began as a period of uncertainty is now revealing how technology can expand human potential.

The road to 2026 points toward deeper specialization, more agile teams, and a stronger alignment between business goals and technical talent. Developers are beginning to show what an AI-native workforce looks like: analytical yet creative, global yet cohesive, and continuously learning. Their evolution signals a broader shift across industries, where the real advantage lies in combining technological capability with human insight.

Developers' habits of self-learning, peer collaboration, and constant adaptation offer a clear blueprint for future skills policies. Governments and organizations can build on these behaviors by promoting flexible training paths, incentives for lifelong learning, and closer ties between industry and education. Turning these lessons into action can help entire economies keep pace with technological change.
The Dev Barometer will continue to track this transformation throughout 2026. This ongoing effort will show how developers and the companies that support them are redefining the future of work, one feedback loop at a time.

Dev Barometer Methodology

The Dev Barometer captures the real pulse of the global developer community across multiple quarters.

Dev Barometer Q3 2025:

- Surveyed **1,129 developers and 50 project managers** across **125 projects and 63 countries**.
- **56% senior (8+ years)**; balanced mix of startups, SMBs, and enterprise projects.
- Key focus: AI adoption, productivity impact, barriers, and upskilling trends.

Dev Barometer Q4 2025:

- Surveyed **501 developers and 19 project managers** across **92 projects and 40 countries**.
- **53% senior-level or higher (8+ years)** working with startups, SMBs, and enterprise projects..
- Key focus: evolving developer roles, AI reliability, and 2026 outlook.

Respondents represented 63 nationalities across the Americas, Europe, and Asia. 22% identified as women, with the highest participation coming from Brazil, India, Colombia and Mexico. The median age was 36, reflecting a mix of mid-career and senior professionals. This diversity ensures that the Dev Barometer reflects a realistic, multi-perspective view of how AI is reshaping software work across demographics and regions.

Data Source:
BairesDev screens over **2 million applications annually**, maintaining one of the largest active developer databases in the Americas.

Responses were analyzed across gender, seniority, and geography to ensure representativeness.

If you want to learn more about the Dev Barometer results, contact:

press@bairesdev.com

About BairesDev.

We are a leading software development partner for global brands. Backed by a decade of cross-industry experience and 4000+ software engineers, we help our clients scale engineering teams and accelerate roadmaps with top 1% LATAM tech talent.

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