



Kontent.ai



The State of Jamstack 2023 Report.

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About Kontent.ai.

Kontent.ai is the headless CMS that enables organizations to have complete control over content to speed up time to market and engage meaningfully with audiences across channels.

In the Kontent.ai platform, governance underpins all operations and workflows. Content creators collaborate in real time, making it easier to land on the best ideas, reduce bottlenecks, and maximize the impact of everything that's created. Kontent.ai is an API-first cloud-native solution, so developers can use their favorite technologies, languages, and frameworks to deliver seamless experiences that look and feel great on any channel.

With offices in New York, London, Amsterdam, Brno, and Sydney, Kontent.ai supports global customers including Zurich Insurance, Algolia, and Oxford University. Kontent.ai is a Microsoft partner and MACH Alliance member, recognized by both Gartner and Forrester. Learn more about who we are and how we empower leading organizations at kontent.ai.

About this report.

For the fourth consecutive year, we have delved deep into the current state of Jamstack's adoption and usage. Our extensive survey reached out to **857 developers across Europe, North America, and Asia**, seeking their insights and comparing their responses to 2022 and 2021.

Are you eager to discover the most popular technologies used for Jamstack projects in 2023? Wondering if developers are sticking to the same tools or exploring new options? Keep reading to uncover these intriguing findings and more, including:

- The top 3 reasons why developers are gravitating towards the Jamstack
- Platforms where developers prefer to store their content and host their projects
- Preferred static site generators among developers today

So, grab your favorite beverage, cozy up in your favorite spot, and get ready to immerse yourself in this report. We're genuinely excited to hear your thoughts and insights. Join us on [Twitter](#), [LinkedIn](#), [Facebook](#), or [Instagram](#), and become a part of our vibrant community!



Introduction.

Is the Jamstack still a thing?

In the last year's report, I delved into the definition of Jamstack, a term familiar to most developers. However, it seems that the Jamstack buzz has completely disappeared since then. Why?

It's the adoption.

We reached a point where nearly any project built with front-end technologies was labeled as Jamstack. The teams and contributors behind leading platforms like Next.js, Gatsby, and Nuxt did their best to cater to the needs of the most-demanding enterprise projects while enhancing the developer experience. This gave us the confidence that these tools could handle everything our projects required.

As a side effect, this also resolved the problem with the learning curve. Now, you don't really need to have extensive experience with all the Jamstack tools to make a good and informed decision. Just pick your favorite platform and the respective framework can handle it all.

We now default to the Jamstack without even consciously thinking about it. The name naturally faded into the background. So, does this mean that the website development field is finally problem-free and saved?

Not quite.



With enterprise companies now using the Jamstack approach with confidence, we are facing a new set of challenges. The findings from our survey this year indicate that marketers have become more acquainted with using headless CMSs and are increasingly demanding additional features. The most common examples include multiple sites or multiple channels management including previews, supporting multiple workflows within a single project, and precise handling of content translations.

On the development side, there is a growing concern over the size of client-side JS bundles. This has motivated developers to explore alternatives like Astro, which can generate lightweight solutions in cases where a fully-featured JS-based framework proves too heavy. Or handling rich text resolving that involves mapping content to components. A new standard called Portable Text aims to streamline this non-trivial process and unify implementations for specific platforms.

When I'm having conversations with fellow developers at conferences, we often find ourselves laughing at the fact that we are back at the starting line of the race. We have gone through the entire cycle, from classic server-side rendering to static pages, incremental regeneration, and now back again. So, while the journey may seem cyclical, it is crucial to recognize the progress made and the transformative impact of the Jamstack on the web development landscape. It has brought tremendous improvements in the developer experience, content creation and management, and website orchestration, and has almost eliminated entry barriers for beginners in website development.

So, without further ado, I invite you to read the report—gain a deeper understanding of the challenges we face, the advancements made, and the promising developments on the horizon.



Ondrej Polesny.
Developer Evangelist, Kontent.ai



The Jamstack survey results.

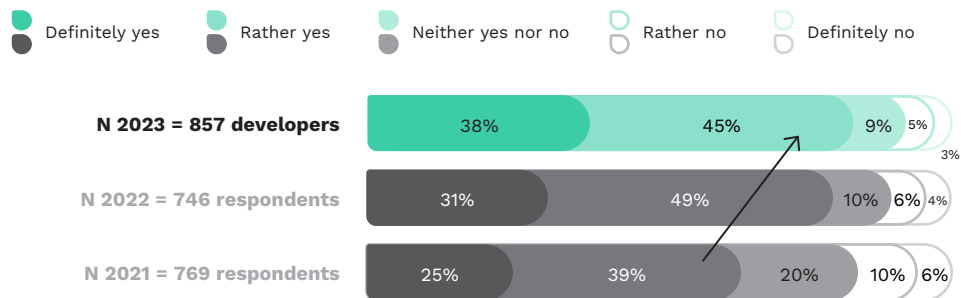
1 Are you familiar with the Jamstack, the architectural approach that decouples the web layer from data and business logic?



Respondents could select only one answer.

Each passing year, our research brings exciting news about the rising popularity of the Jamstack among developers. In fact, an impressive **83% of developers are currently well-versed in the Jamstack**, surpassing last year's figures.

However, please keep in mind that we used a new, updated definition this year, which makes the comparison provided only indicative.

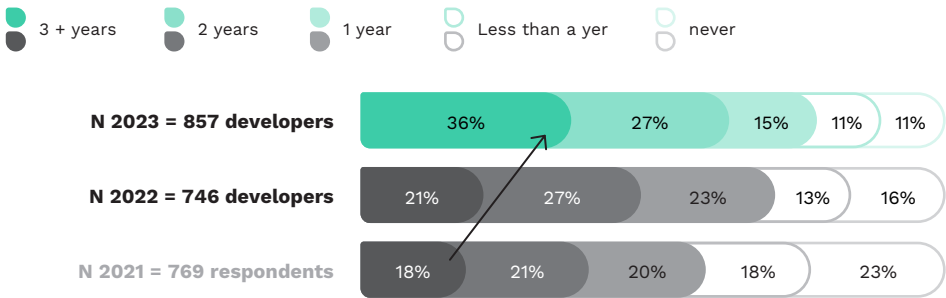


2 How long have you been working with the Jamstack?

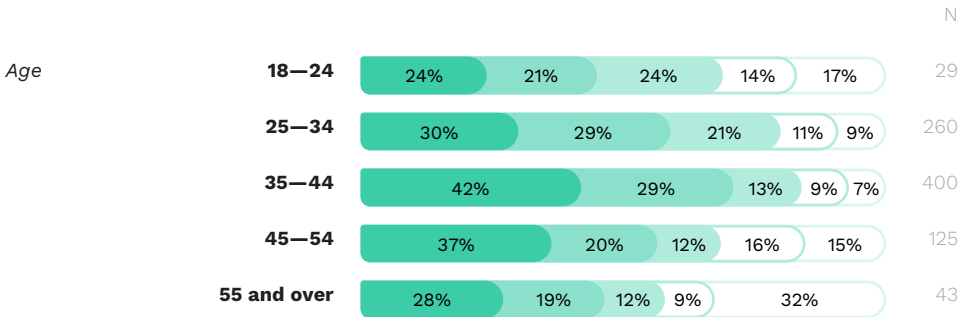


Respondents could select only one answer.

The Jamstack community continues to grow in both knowledge and experience. **A remarkable 36% of developers now boast 3+ years of hands-on experience** with the architectural approach.



When examining the demographics of Jamstack practitioners, an intriguing pyramid structure emerges based on age. The youngest and oldest respondents tend to have the least experience with Jamstack while **developers aged 25 to 54 exhibit their extensive familiarity and expertise:**



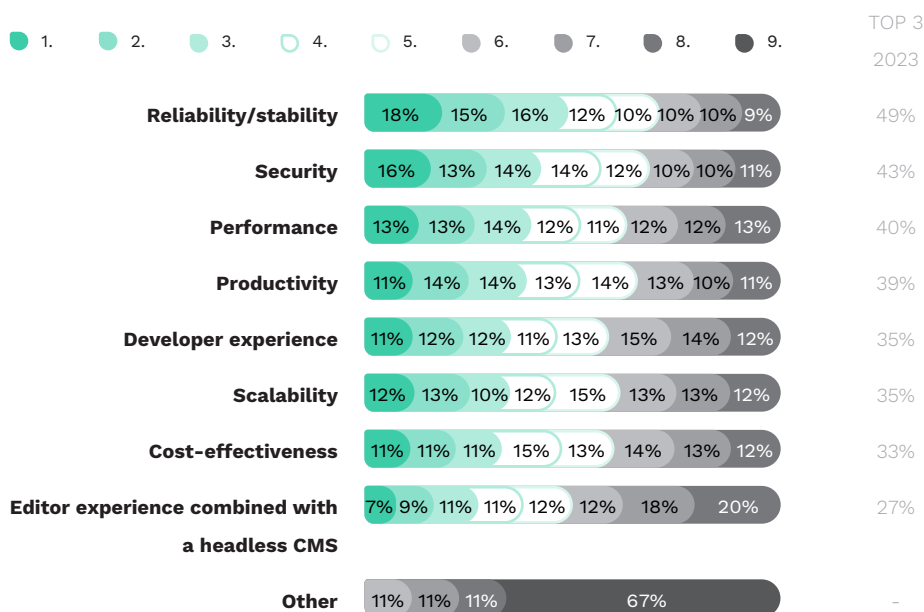
This pattern showcases the dynamic nature of Jamstack adoption, with different age groups contributing their unique perspectives and levels of proficiency.

3 What are most likely the reasons for choosing the Jamstack to build an app with?



Respondents were asked to put the items in order (the most likely reasons at the top, the least likely reasons at the bottom of the list).

The top reason for choosing the Jamstack is undeniably its **reliability and stability**. A whopping 49% of respondents listed this as one of their top three reasons. **Security** also takes the spotlight (43%)—the focus on protecting data and ensuring a secure environment remains a key consideration in this community. Not far behind, **performance** proves to be another compelling factor, with 40% of respondents recognizing the speed and efficiency offered by the Jamstack.



N (2023) = 766 developers working with the Jamstack

Interestingly, the least common reason for developers to embrace the Jamstack is its ability to combine the editor experience with a headless CMS.

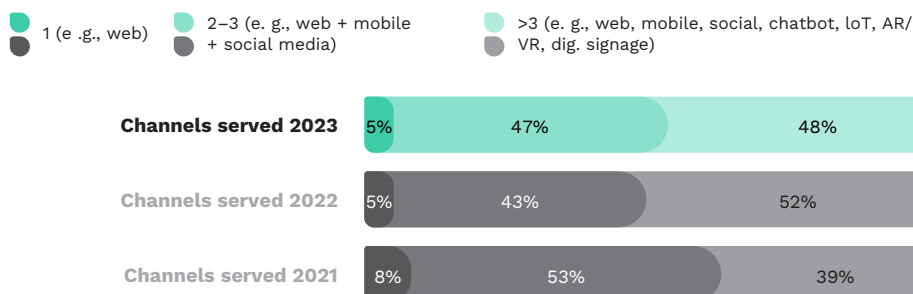
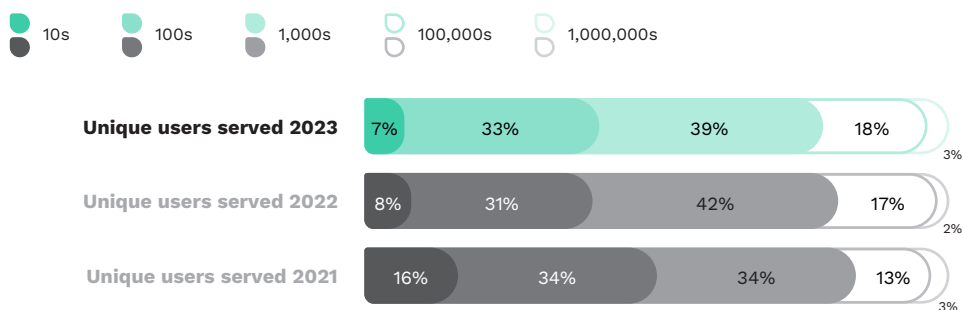
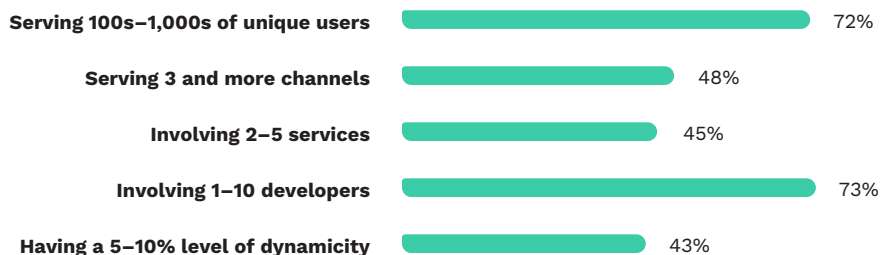
What's intriguing is that these preferences and opinions remain fairly consistent from year to year. It shows that developers have found compelling reasons to opt for the Jamstack and those reasons have stood the test of time.

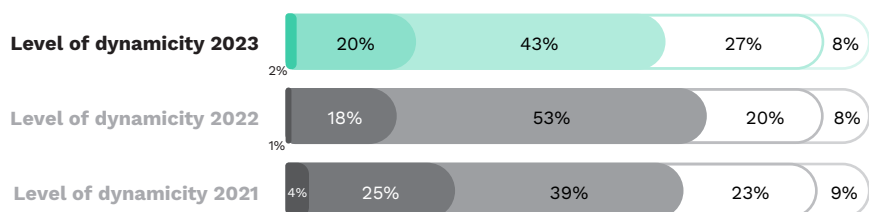
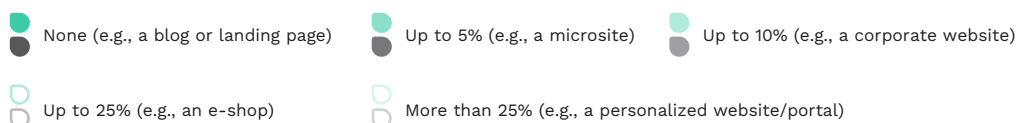
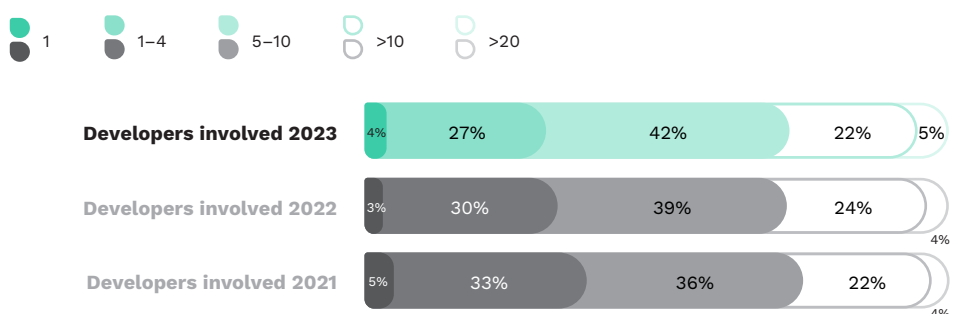
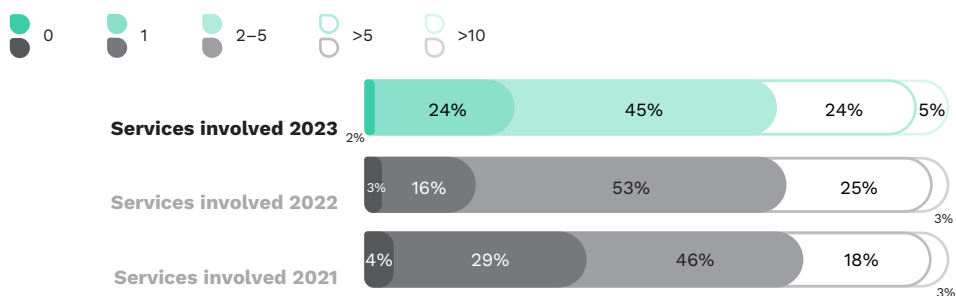
4 Think of the most complex project you've built with Jamstack. Try to describe its complexity (choose one item in each line):



Respondents could select only one item in each line.

Majority of developers who work with the Jamstack describe their most complex projects in 2023 as:





N (2023) = 766 developers working with the Jamstack
 N (2022) = 628 developers working with the Jamstack
 N (2021) = 592 developers working with the Jamstack

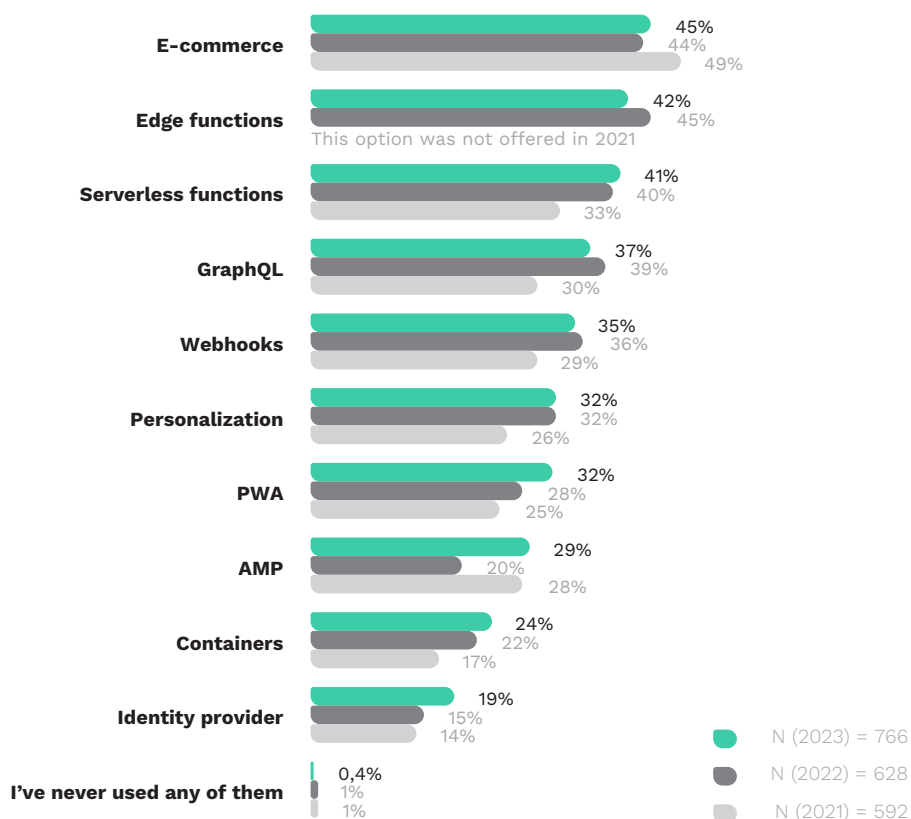
5 Please, select the technologies you've ever used in a Jamstack project.



Respondents could select more than one answer.

When it comes to the technologies employed in Jamstack projects, **e-commerce** takes the lead, with 45% of developers having utilized it in their Jamstack endeavors. This marks a 1% increase compared to the previous year, indicating its enduring popularity.

Coming in second is the usage of **edge functions**, which are leveraged by 42% of developers. While experiencing a slight 3% decrease compared to 2022, they still remain a widely adopted technology in the Jamstack community. With 41%, **serverless functions** claim the third spot as one of the most widely used technologies.

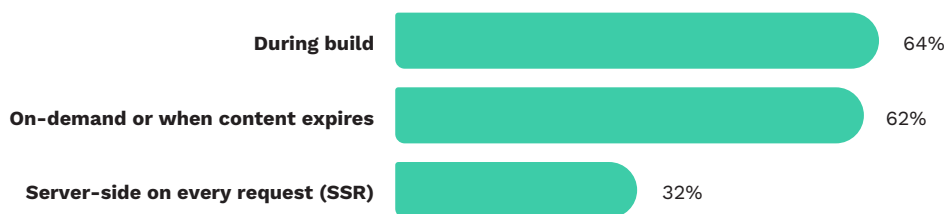


6 Which rendering modes of Jamstack sites do you use?



Respondents could select more than one answer.

Approximately 64% of respondents prefer the “during build” mode, while an almost equal 62% opt for the “on-demand or when content expires” mode.



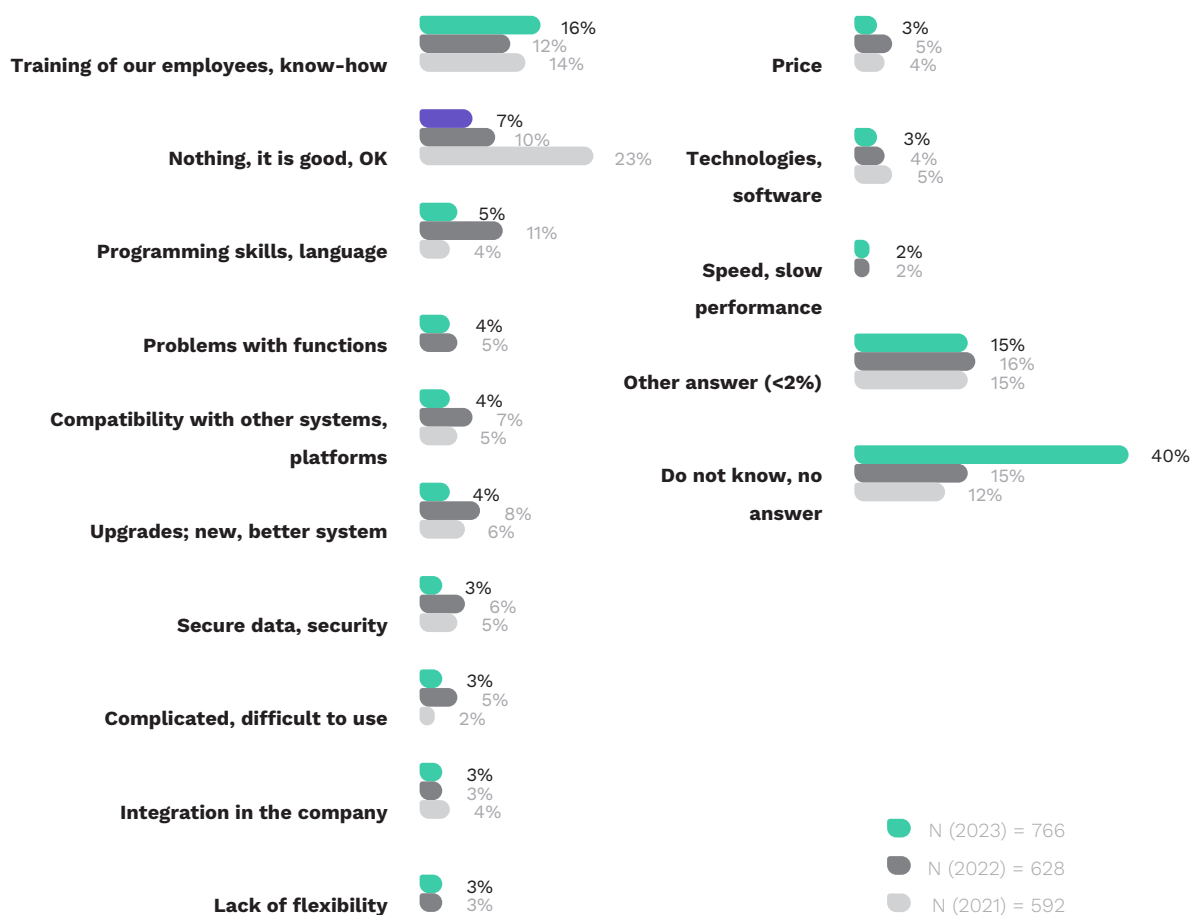
N = 766 developers working with the Jamstack

7 Considering your experience, where do the biggest challenges in adopting the Jamstack architecture lie?



Respondents could provide more than one answer.

This year, the respondents indicated that the primary challenge in adopting the Jamstack architecture is **educating and training employees**, described also as **know-how**. 16% of surveyed developers spontaneously mentioned this challenge, which is a 4% increase compared to 2022.



8 Which static site generators do you like to develop with?

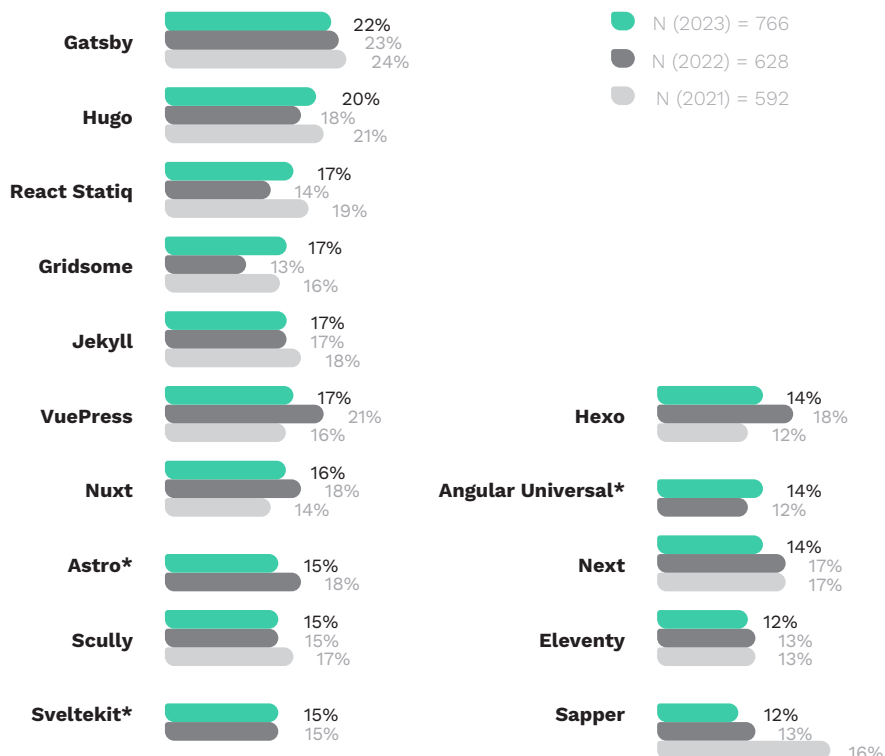


Respondents could select up to three answers.

Taking the lead with an unwavering position at number one is **Gatsby**, mentioned by a remarkable 22% of developers. **Hugo** has regained its popularity after a slight decline in 2022 with a solid 20% endorsing it.

However, there are other notable contenders in the arena. **React Statiq** (17%), **Gridsome** (17%), and **Jekyll** (17%) have also remained popular choices.

On the other hand, some SSGs have experienced a slight decline in their fan base. VuePress, Hexo, Next, and others have seen a decrease in popularity, with VuePress and Hexo taking a hit of 4% compared to 2022, while Next experienced a decline of 3%.



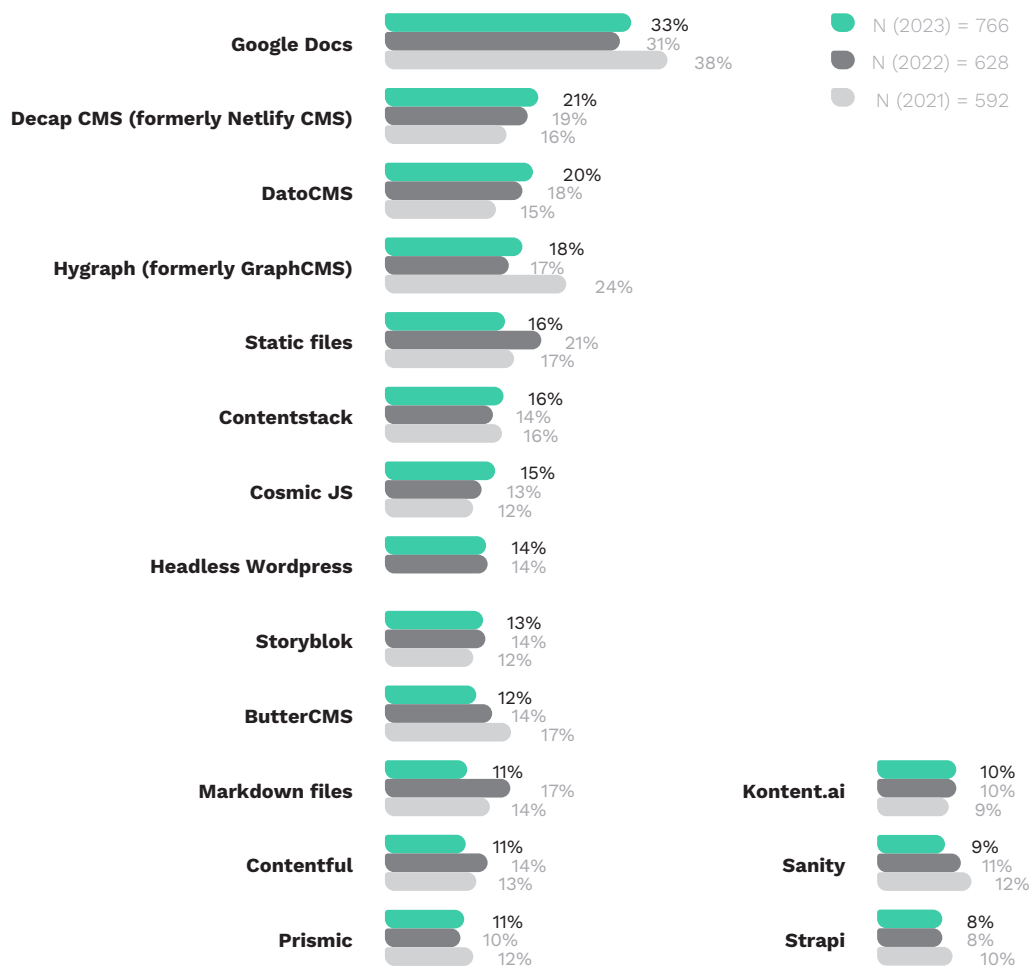
*This option was not offered in 2021

9 Where do you prefer to keep your content?



Respondents could select up to three answers.

Google Docs continues to dominate as the most popular content storage solution, maintaining its leading position (33%). **Netlify CMS** (21%) and **DatoCMS** (20%) hold strong in the second and third positions, showing a slight preference increase compared to the previous year.



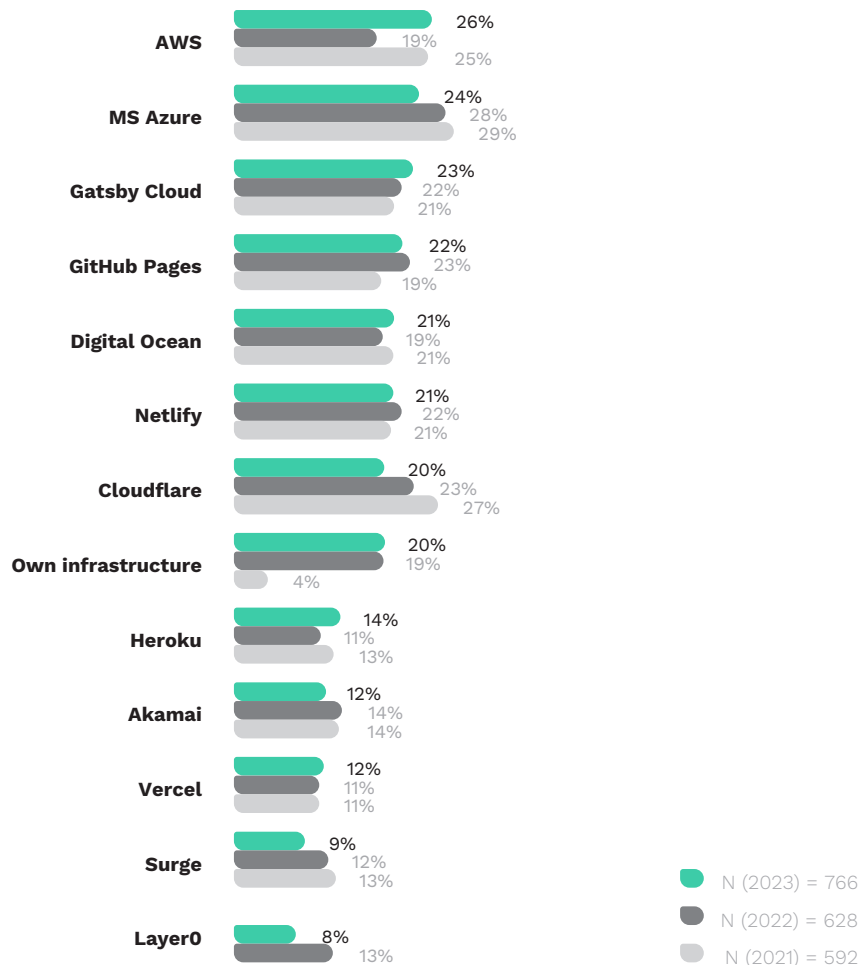
10 Where do you typically deploy and host your projects?



Respondents could select up to three answers.

AWS reclaims its leadership position as the preferred platform, with 26% of developers relying on it this year. Following closely behind is **MS Azure** with a current adoption rate of 24%. Not far behind, **Gatsby Cloud** holds its ground with a solid 23% of developers choosing it for their hosting needs.

Interestingly, approximately one-fifth of all developers surveyed choose to rely on their own infrastructure.



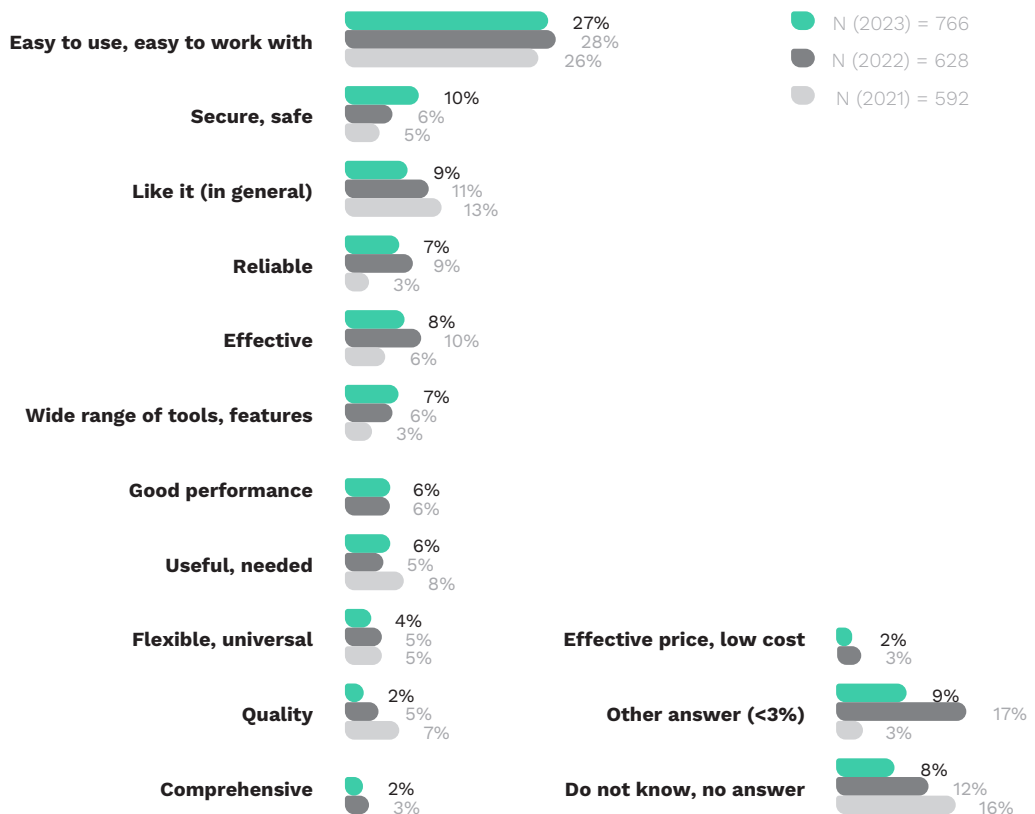
11 What do you love about today's Jamstack tooling?



Respondents could provide more than one answer.

For 27% of respondents, the **ease of use** is a key highlight, emphasizing the intuitive nature of working with the Jamstack and the smooth development experience it offers. **Safety and security** take the second spot, with 10% of developers expressing their appreciation. Additionally, 9% of respondents simply **enjoy the architectural approach in general**, appreciating its overall benefits and the transformative impact it brings to their development workflow.

As the Jamstack continues to gain traction, it's clear that its strengths resonate with developers seeking a seamless and secure development experience.

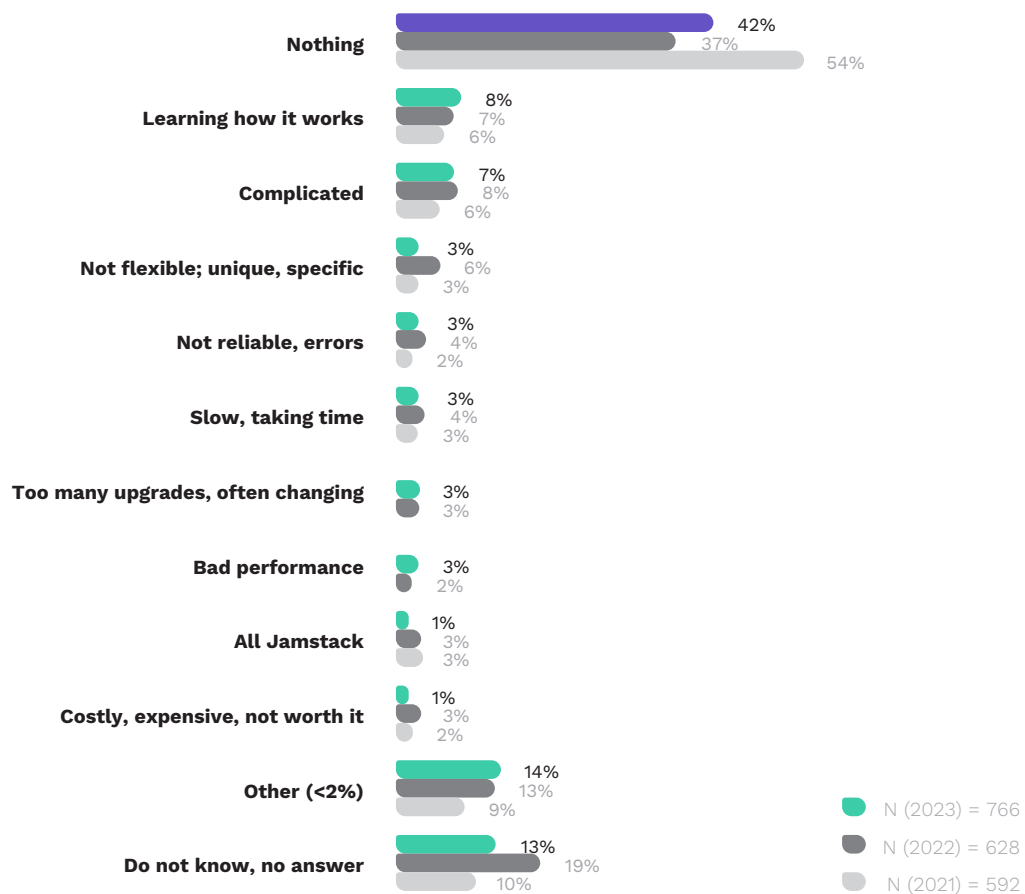


12 What do you hate about today's Jamstack tooling?



Respondents could provide more than one answer.

42% of respondents **have no complaints**, reflecting a significant level of satisfaction and contentment. However, a fraction of respondents voiced their concerns about certain aspects of the approach. Some mentioned difficulties in **learning how it works** (8%), perceiving it as overly **complex** (7%) or lacking **flexibility** (3%) while others expressed concerns about its **speed** (3%).



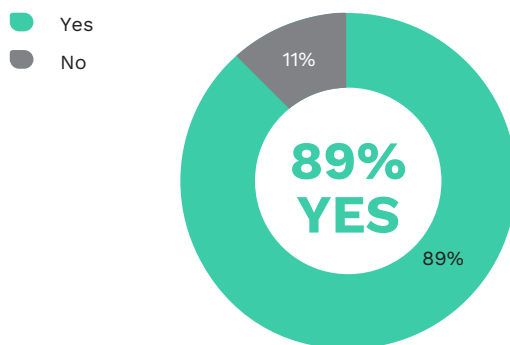
13 Are you interested in the omnichannel approach, that is combining content from multiple sources or using a single source of content on multiple website and channels?



Respondents could select only one answer.

An overwhelming **89% of developers** working with the Jamstack **express a keen interest in the omnichannel approach**, which was defined as “the combination of content from various sources or utilizing a single content source across multiple websites and channels”.

The high level of interest emphasizes the significance placed on achieving content consistency and omnichannel content management within the Jamstack ecosystem.



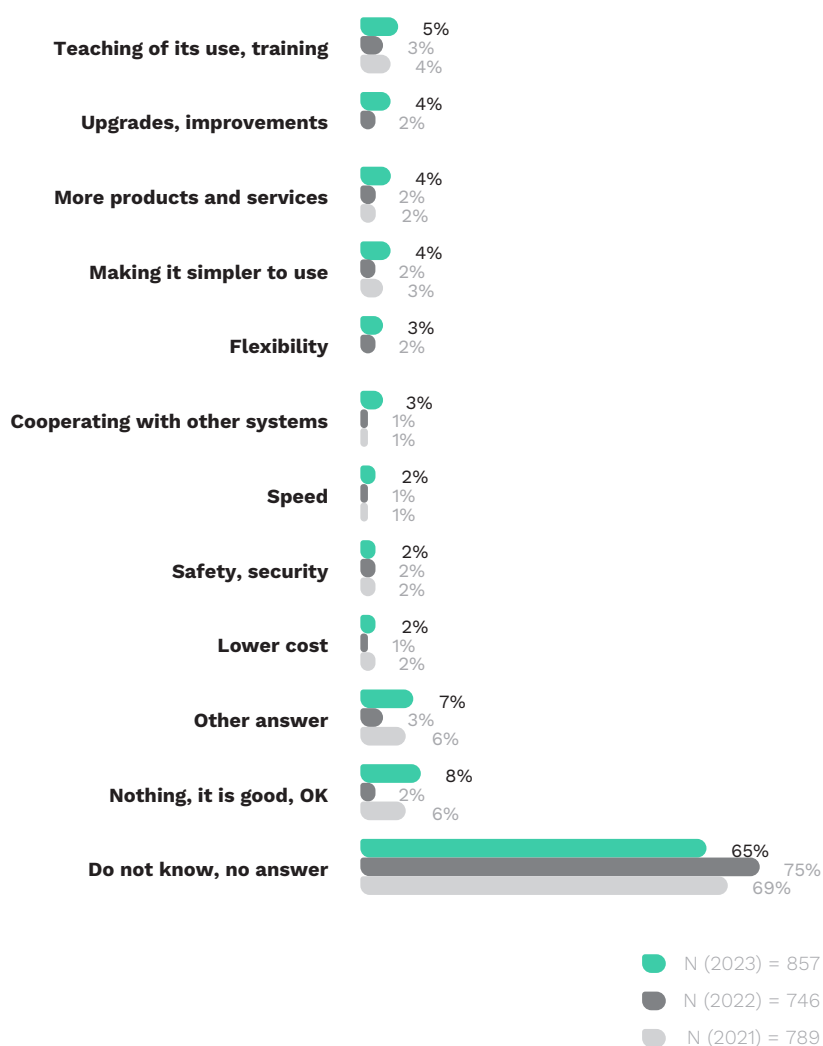
N = 766 developers working with the Jamstack

14 Name one thing that could help increase the Jamstack adoption.



Respondents could provide more than one answer.

The majority of respondents opted not to answer the question regarding what could potentially boost the Jamstack adoption. Nevertheless, those who did share their suggestions mentioned the provision of **comprehensive tutorials** (5%), **implementing various improvements and upgrades** (4%), or **simplifying overall usage** (4%).



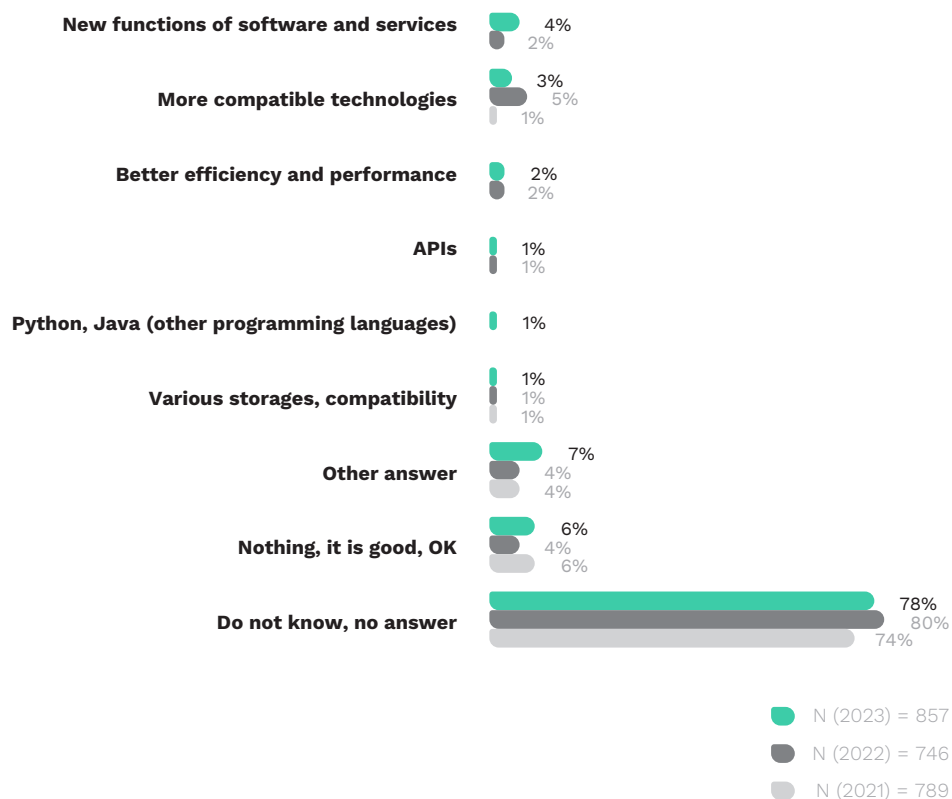
15 Name one integration you'd like to see in the Jamstack world.



Respondents could select only one answer.

The respondents who were willing to share their insights provided answers that were either very specific (Other answer) or general in nature. Some expressed their desire to explore **new features** (4%), **a broader range of compatible technologies** (3%), or **enhancements in efficiency and performance** (2%).

While some specific integrations were mentioned, such as **APIs** (1%) and **certain programming languages** (1%), it's important to note that these mentions were relatively scarce as 78% did not answer this optional question.



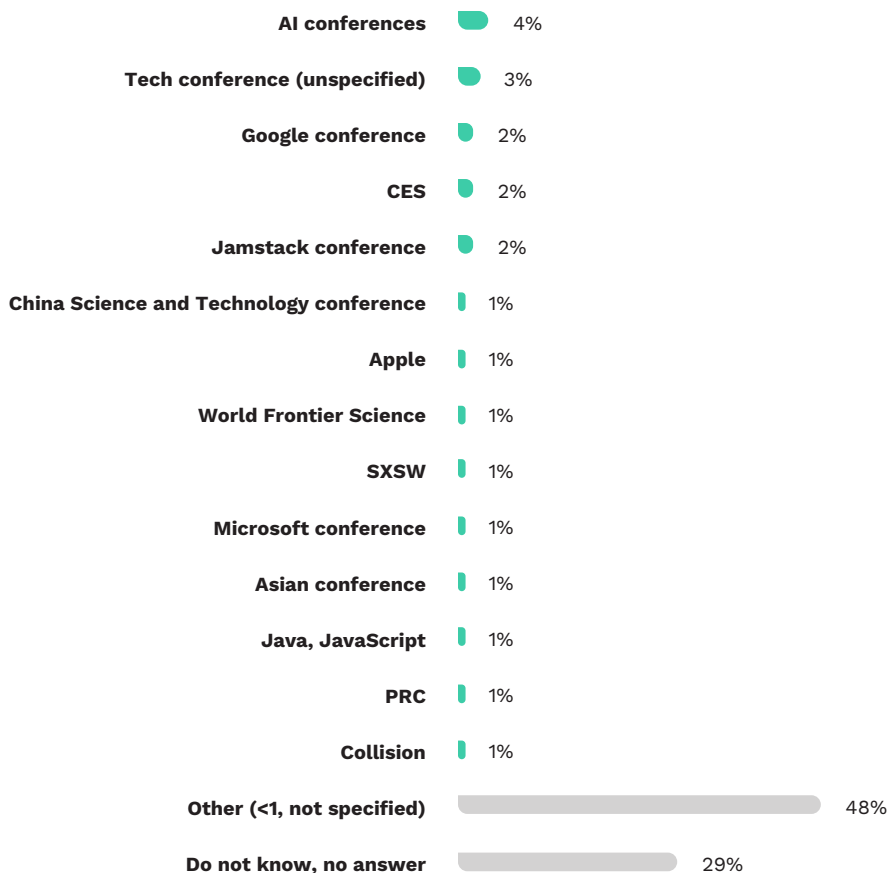
16 Which tech conference are you looking forward to this year?



Respondents could select only one answer.

The answers provided by the respondents make it evident that the tech conference landscape is incredibly diverse, offering developers a multitude of exciting options to explore.

With the recent surge in AI technology, it comes as no surprise that 4% of respondents expressed their anticipation for upcoming AI conferences.



N = 857 developers

Conclusion.

In conclusion, our comprehensive survey conducted with 857 developers has provided invaluable insights into the perception and adoption of the Jamstack approach. The findings reveal a high level of familiarity and experience among developers—an impressive **89% of respondents have hands-on experience** working with the Jamstack, highlighting its relevance in modern development practices.

When exploring the reasons behind choosing the Jamstack, the survey uncovered compelling factors that influence developers' decisions. Notably, **reliability** emerged as the most prominent reason (49%). **Security** also ranked high, with 43% of respondents including it among their top three considerations. Additionally, **performance** garnered notable attention, with 40% of respondents recognizing it as one of their primary reasons for embracing the Jamstack.

In 2023, the most complex Jamstack projects demonstrate the following characteristics:

- Serving 100s–1,000s of unique users (72%)
- Developed by 1–10 team members (73%)
- Serving 3 or more channels (48%)
- Involving 2–5 services (45%)
- Exhibiting a 5–10% level of dynamicity (43%)

Additionally, developers widely incorporate **e-commerce technologies** (45%), **edge functions** (42%), and **serverless functions** (41%) in their Jamstack projects.

These findings underscore the Jamstack's appeal and effectiveness, aligning with its reputation for delivering dependable and performant digital experiences.

As the Jamstack ecosystem continues to evolve, we encourage you to explore the ever-expanding possibilities of this architectural approach. Together, we can push the boundaries of web and app development and create exceptional digital experiences that captivate and delight users.



Thank you for downloading this report—we hope you enjoyed reading it! We love to hear back from our readers, so feel free to reach out to us on social media and let us know what you think about the Jamstack ecosystem.

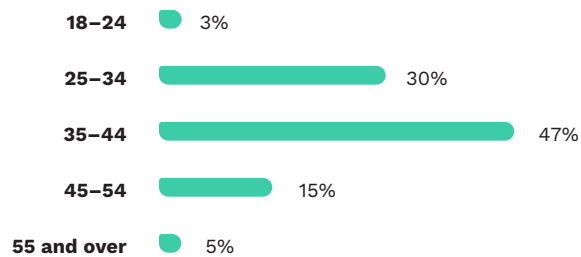


**Overview of our
respondents.**

Region



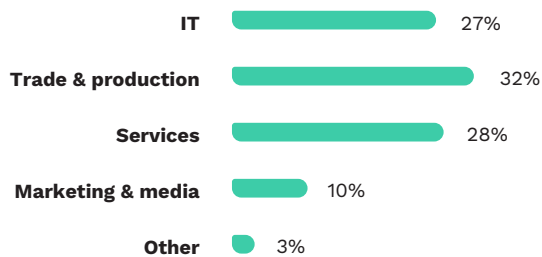
Age



Company size (employees)

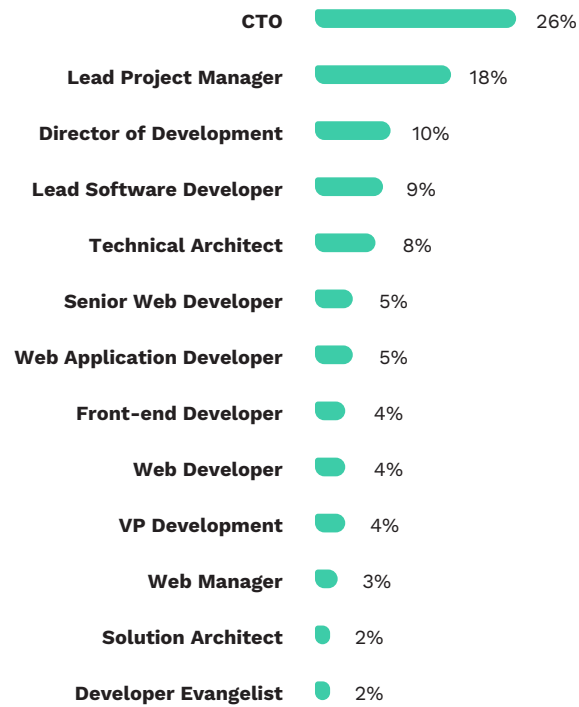


Industry



N = 857 developers

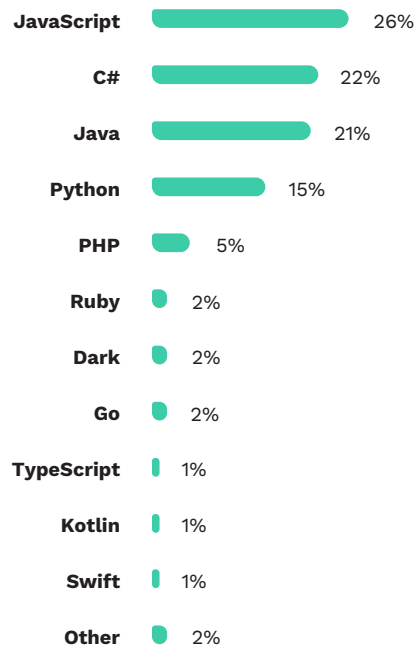
Job title



N = 857 developers



Primary programming language



N = 857 developers



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