



# 6 Software Development Trends for 2020: Developers Needed

BEN PUTANO | FEBRUARY 12, 2020 |  
DEVELOPER TIPS, TRICKS & RESOURCES  
([HTTPS://STACKIFY.COM/DEVELOPERS/](https://stackify.com/developers/)).

Well, my developer friends, 2020 is your year. Businesses in practically every industry have a fever to grow their IT operations and automate just anything possible.

I know, I know. The demand for developers is nothing new. But 2020 is different. 2020 is the year where we see some of this decade's most exciting technologies

## Search Blog

## Topics/Keywords

ASP.NET (<https://stackify.com/tag=asp.net,net-core/>).

.NET Core  
(<https://stackify.com/coni/core/>).

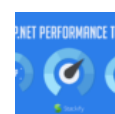
Java  
(<https://stackify.com/coni/>).

Azure  
(<https://stackify.com/coni/>).

AWS  
(<https://stackify.com/coni/>).

Cloud (<https://stackify.com/tag=cloud,azure,aws/>).

## Popular Posts



ASP.NET  
Perform...

How to

become commercially viable, and others finally go mainstream. We'll see new trends such as edge computing, machine learning (<https://www.future-processing.com/blog/machine-learning-in-a-nutshell-infographic/>), and artificial intelligence go mainstream and reach larger adoption. Also, many of these trends such as blockchain and artificial intelligence (AI), will have an impact beyond our comprehension. 2020 will be an exciting and important year for software, and developers will play a fundamental role in it.

Without further ado, here are 6 software development trends that will dominate 2020. Feel free to share your thoughts, questions, and suggestions in the comments below.

[Troubles...](#)[How to Monitor...](#)[SQL Perform...](#)[Looking for New...](#)

## Recent Posts

[\(https://stackify.com/you-use-flutter-in-your-next-project/\)](https://stackify.com/you-use-flutter-in-your-next-project/)[\(https://stackify.com/apm-and-rum-to-improve-your-user-experience/\)](https://stackify.com/apm-and-rum-to-improve-your-user-experience/)[\(https://stackify.com/the-right-programming-language-for-your-application/\)](https://stackify.com/the-right-programming-language-for-your-application/)



## Tip: Find application errors and performance problems instantly with Stackify Retrace



(<https://stackify.com/>)

Troubleshooting and optimizing your code is easy with integrated errors, logs and code level performance insights.

### Try today for free

([https://info.stackify.com/cs/c/?cta\\_guid=b5be9d18-d34e-4d1a-874b-19adb6c55bb0&signature=AAH58kEgG7sS01S5sPPe4ovAP6jTEViOew&placement\\_id=DEV1048944c63d3f3f&click=c4f0143d-f625-4502-b6f8-fa039264e337&hsutk=893dce787b773f093d1d7d47f28016c2&canonical=https%3F6-Software-Development-Trends-for-2020-Developers-Needed-2018%2F&portal\\_id=207384&redirect\\_url=APefjpGBLzx9OfEoZa1DhR4l2lwh-OZVrN6wZMAVa1rfnjpJJ79OPXLHOKSxWn06b71yly2mn8ox87ejZT0u0kJdDqEzn-nNiewu5aYGsgPTivXv\\_TEOonRTI&\\_\\_hstc=23835621.893dce787b773f093d1d7d47f28016c2&\\_\\_hssc=23835621.893dce787b773f093d1d7d47f28016c2&\\_\\_hsid=23835621.893dce787b773f093d1d7d47f28016c2](https://info.stackify.com/cs/c/?cta_guid=b5be9d18-d34e-4d1a-874b-19adb6c55bb0&signature=AAH58kEgG7sS01S5sPPe4ovAP6jTEViOew&placement_id=DEV1048944c63d3f3f&click=c4f0143d-f625-4502-b6f8-fa039264e337&hsutk=893dce787b773f093d1d7d47f28016c2&canonical=https%3F6-Software-Development-Trends-for-2020-Developers-Needed-2018%2F&portal_id=207384&redirect_url=APefjpGBLzx9OfEoZa1DhR4l2lwh-OZVrN6wZMAVa1rfnjpJJ79OPXLHOKSxWn06b71yly2mn8ox87ejZT0u0kJdDqEzn-nNiewu5aYGsgPTivXv_TEOonRTI&__hstc=23835621.893dce787b773f093d1d7d47f28016c2&__hssc=23835621.893dce787b773f093d1d7d47f28016c2&__hsid=23835621.893dce787b773f093d1d7d47f28016c2))

cta\_guid=b5be9d18-d34e-4d1a-874b-

19adb6c55bb0&signature=AAH58kEgG7sS01S5sPPe4ovAP6jTEViOew&placement\_id=DEV1048944c63d3f3f&click=c4f0143d-f625-

1455-4b24-b560-

8944c63d3f3f&click=c4f0143d-f625-

4502-b6f8-

fa039264e337&hsutk=893dce787b773f093d1d7d47f28016c2&canonical=https%3F6-Software-Development-Trends-

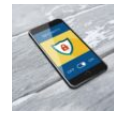
development-trends-

2018%2F&portal\_id=207384&redirect\_url=APefjpGBLzx9OfEoZa1DhR4l2lwh-

OZVrN6wZMAVa1rfnjpJJ79OPXLHOKSxWn06b71yly2mn8ox87ejZT0u0kJdDqEz

n-

nNiewu5aYGsgPTivXv\_TEOonRTI&\_\_hstc=23835621.893dce787b773f093d1d7d47f28016c2&\_\_hssc=23835621.893dce787b773f093d1d7d47f28016c2&\_\_hsid=23835621.893dce787b773f093d1d7d47f28016c2



(<https://stackify.com/api-security-best-practices-to-safeguard-sensitive-data/>)

## Solutions



(<https://stackify.com/myths-about-custom-website-development/>)

myths-about-

custom-website-

development-trends-

2018%2F&portal\_id=207384&redirect\_url=APefjpGBLzx9OfEoZa1DhR4l2lwh-

OZVrN6wZMAVa1rfnjpJJ79OPXLHOKSxWn06b71yly2mn8ox87ejZT0u0kJdDqEz

n-

nNiewu5aYGsgPTivXv\_TEOonRTI&\_\_hstc=23835621.893dce787b773f093d1d7d47f28016c2&\_\_hssc=23835621.893dce787b773f093d1d7d47f28016c2&\_\_hsid=23835621.893dce787b773f093d1d7d47f28016c2

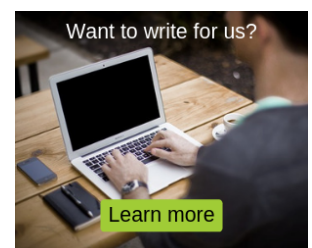
development-trends-

2018%2F&portal\_id=207384&redirect\_url=APefjpGBLzx9OfEoZa1DhR4l2lwh-

OZVrN6wZMAVa1rfnjpJJ79OPXLHOKSxWn06b71yly2mn8ox87ejZT0u0kJdDqEz

n-

nNiewu5aYGsgPTivXv\_TEOonRTI&\_\_hstc=23835621.893dce787b773f093d1d7d47f28016c2&\_\_hssc=23835621.893dce787b773f093d1d7d47f28016c2&\_\_hsid=23835621.893dce787b773f093d1d7d47f28016c2



(<https://stackify.com/guest-blogging-guidelines/>)

blogging-

guidelines/)

## 6 Software Development Trends for 2020

## Demand for Blockchain Developers Continues to Grow

Although the “Crypto Winter” the blockchain industry has experienced in late 2019, this gave the chance to weed out meaningless projects. Some argue it was a much-needed cleaning to continue with the most serious projects in the blockchain space. Although this tougher period, the number of blockchain startups continued to rise.

In addition, fewer software engineers hunt for blockchain-related jobs. A study by Indeed.com (<https://gamblizard.de/bitcoin-job-market-2019-beyond/>) shows that in the past year, the share of cryptocurrency job postings per million on Indeed has increased by 26%, while the share of searches per million for jobs has decreased by 53%. This means that there is a big need for expertise in the blockchain industry. Most firms look for Ethereum or Bitcoin experts, although many other projects require highly-skilled blockchain developers.

## IoT Gets Pushed to the Edge

Wearables like the Fitbit and Apple Watch get most of the attention, but they are merely a niche in the vast IoT ecosystem. From cars to roads, deep sea oil rigs to living rooms, nearly everything is turning into a data-collecting device. These devices collect enormous amounts of data, and IT companies are exploring cheaper and faster methods of processing it all. That's where edge computing is going to play a role in 2020.

### Edge computing

(<https://www.networkworld.com/article/3224893/internet-of-things/what-is-edge-computing-and-how-it-s-changing-the-network.html>) uses a mesh of micro data centers to process data near the device, or at the "edge" of the network. Processing on the edge saves time and money from porting all of the data to a centralized data center. For the end-user, this means IoT devices will be able to perform faster real-time analytics, even when they are in a place with poor connectivity (like on a deep-sea oil rig).

---

**Edge computing is going to impact every layer of IT infrastructure, including the cloud itself.**

---

As edge computing becomes a priority, database and network engineers will be called upon to create the infrastructure of the IoT future. More businesses are also likely to adopt BizDevOps (<https://stackify.com/bizdevops-guide/>) practices thanks to the faster real-time analytics, giving developers a seat at the strategy table.

Edge computing is going to impact every layer of IT infrastructure, including the cloud itself. (<https://techcrunch.com/2017/08/03/edge-computing-could-push-the-cloud-to-the-fringe/>). However, some experts are warning about the pitfalls of edge computing, which brings us to...

## Cybersecurity Reaches an Inflection Point

With a focus on Equifax, WannaCry, Uber, and National Security Agency, 2017 had been (<https://www.zdnet.com/pictures/biggest-hacks-leaks-and-data-breaches-2017/>) an awful year for private information on the web. That's saying something, considering

the election hacking fiasco a year before. Security is top-of-mind for every enterprise, organization, and government in the world, which means resources will be flowing to develop new solutions.

Cybersecurity initiatives can be divided into two categories: Internal and external. Internally, businesses will be focused on building security into their software. DevOps teams should focus on automating security testing (<https://stackify.com/devsecops-automate-security-testing/>) into their software development lifecycle. This will help ensure that vulnerabilities are not introduced during development.

However, there is a lack of cybersecurity talent (<https://www.cnbc.com/2019/03/06/cybersecurity-expert-shortage-may-cost-companies-hundreds-of-millions.html>) is. InfoSecurity magazine (<https://www.infosecurity-magazine.com/news/cybersecurity-skills-shortage-tops/>) reported that 65% of the questioned organizations indicated a shortage of cybersecurity employees. In addition, the questionnaire also revealed that this lack of skilled cybersecurity

professionals is their number one concern. This shortage has consequences beyond big business. Jon Oltsik (<https://www.csoononline.com/article/3237049/security/research-confirms-the-cybersecurity-skills-shortage-is-an-existential-threat.html>) of the ESG believes that the cybersecurity skills shortage, “represents an existential threat to our national security.”

Like blockchain and edge computing, cybersecurity represents another green pasture for developers who want their skills to stay in-demand for the foreseeable future. It could also be some of the most important work of our generation. Therefore, cybersecurity definitely deserves a spot in the list of software development trends for 2020.

## **Continuous Delivery Is No Longer Competitive Advantage; It's Table Stakes**

Software delivery will reach Formula 1-level speeds in 2020, led by the giants like Amazon who allegedly deploy new code every 11.7 seconds (<https://techbeacon.com/10-companies->



killing-it-devops). Not every business needs to be *that* fast, but continuous delivery provides several advantages beyond just speed of deployment. These advantages will become table stakes in competitive software niches.

In short, continuous delivery is when the default state of your software build is “ready for deployment”. As soon as code is written, it is integrated (called continuous integration), tested, built, and configured. The only thing left for developers to do is hit the big red “Deploy” button. Companies like Amazon take this process a step further by implementing continuous deployment. (<https://stackify.com/continuous-delivery-vs-continuous-deployment-vs-continuous-integration/>).

Despite speeding up the rate of deployment, continuous delivery actually helps teams reduce the number of errors that make it into production. Thanks to continuous testing, all errors are caught immediately and sent back to the developer to fix. Additionally, continuous delivery helps teams stay on track with building software their customers want. Following the Agile principle

(<http://agilemanifesto.org/principles.html>) of short feedback loops, continuous delivery gets new releases into the hands of customers fast.

Continuous delivery requires a number of tools (<https://stackify.com/top-continuous-integration-tools/>) to function, including a CI build server, monitoring tools, and code management platforms. To learn more about continuous delivery, check out Stackify (<https://stackify.com/why-stackify/>).

---

**Following the Agile principle of short feedback loops, continuous delivery gets new releases into the hands of customers fast.**

---

## Artificial Intelligence and Security Becomes a Necessity

We're reaching the point where businesses absolutely need to adopt AI in order to stay relevant. Voice-activated home assistants, smartphones, Big Data, and Insight-as-a-Service vendors will all have big years as a result of this AI adoption.

In addition, AI security is a domain that will grow during 2020. We've already seen a big focus on artificial intelligence but there has been a lack of focus on the security part. To give an example, a self-driving car relies on reading information from the real world like a stop sign. What if a malicious person decides to stick a 45 miles sticker on the stop sign. This implies there is a big chance the AI interprets this intersection with a stop sign as a normal road and blasts through the intersection. It's a very simple and easy attack to trick the AI.

Another trick includes using a laser to transmit sound over hundreds of meters to transmit voice commands. Through this laser, they can silently speak to any voice-assisted device (<https://www.wired.com/story/lasers-hack-amazon-echo-google-home/>). This is a very dangerous discovery as it allows malicious persons to make purchases or even open garage ports.

In short, spending on AI solutions is predicted to continue to grow by 46.2% annually, reaching \$52.2 billion by 2021.

# Distributed Cloud

The distributed cloud already took off at the beginning of 2020. The cloud is nothing new, however, the way we use the cloud is quite innovative. The term distributed cloud refers to the distribution of services across multiple cloud providers but as well as geographical cloud locations. For example, a cloud provider such as Amazon offers servers in Ireland, The Netherlands, USA, and many more locations. As an organization, you can reduce the risk of a possible failure by spreading services geographically over the cloud provider.

The benefits of the distributed cloud?

- **Reduce latency** as requests don't have to travel the whole world. A request is directed to the closest server that hosts your service, resulting in a faster response time
- **Less risk for failure.** As your services are spread over multiple cloud providers, the failure of one cloud service will have a minimal impact on the availability of your service.
- **Better load balancing.** Your service can better manage heavy load as the

requests are spread across multiple cloud providers which all have their load balancing mechanisms.

Lastly, let's take a look at how you can stay up to date with all these new development trends.



## Improving Your Development Skills

There's nothing but opportunity ahead for developers with the right skillset. Most of the software development trends in 2020 require more than just basic programming knowledge, but it's never too late to add additional competencies to your toolbox. Stay up to date with Stackify's blog (<https://stackify.com/blog/>) for tips and tools to make you a better developer.

Stackify's APM tools are used by thousands of .NET, Java, PHP, Node.js, Python, & Ruby developers all over the world.

The image contains three distinct icons. The first icon on the left shows a grey cloud, a white speedometer with a yellow needle, and a small heatmap with yellow and orange squares. The middle icon is a yellow triangular warning sign with a black border and a black bug in the center. The third icon on the right depicts a stack of three grey logs with yellow circular patterns, and a small monitor displaying a line graph with three data points and an upward arrow.

Learn More  
(/retrace/)

 About the Author	 Latest Posts
--	--

([http://www.wecontent.co/?utm\\_source=Stackify&utm\\_medium=profile%20link](http://www.wecontent.co/?utm_source=Stackify&utm_medium=profile%20link)), helps technology companies build passionate audiences through irresistible content.

## Get the latest news, tips, and guides on softv

Join the 50,000 developers that subscribe to ou

S

Get In Touch	Products	Solutions	Resources	Company
Contact Us	Retrace	Application Performance Management	What is APM?	About Us
Request a Demo	Prefix		Pricing	News
Start Free Trial	Netreo	Centralized Logging	Case Studies	Careers
	.NET Monitoring	Code Profiling	Blog	GDPR
7171 Warner Ave Suite B787 Huntington Beach, CA 92647 866-638-7361 (tel:8666387361)	Java Monitoring	Full Transaction Tracing	Documentation	Security Information
	PHP Monitoring	Application & Server Monitoring	Free eBooks	Terms & Conditions
	Node.js Monitoring	Real User Monitoring	Free Webinars	Privacy Policy
	Ruby Monitoring		Videos	
	Python Monitoring	Retrace Deployment	ROI Calculator	
	Relic	For Developers	Support	
	Application Insights	For DevOps	News	

© 2022 Netreo