Kubernetes jobs

Trend report 2022 Q1
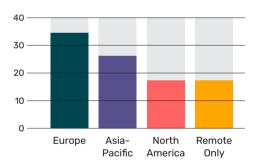
kube
CAREERS

Table of Contents

Where are the most Kubernetes job offers located?

In Europe.

34% **26%** **19%** **19%**

Europe | Asia-Pacific | North America | Remote Only

At least that's the case for this quarter.

Europe leads with more than 34% of the Kubernetes jobs, while Asia-Pacific comes in second place with 26% of the job listings.
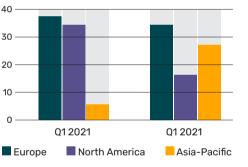
Remote only and North American jobs are tied at 19%.

Are all the Kubernetes job offers always from Europe?

Yes, and no.

It's worth keeping in mind that:

1. Most remote job listings are from companies based in North America.
2. In the past three months, we tried to include more diverse offers from locations other than Europe and North America.
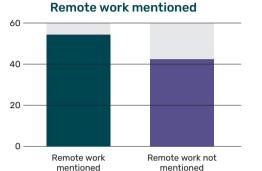
Top Kubernetes job locations (Q1 2021 vs Q1 2022)

Q1 2021 | Q1 2021

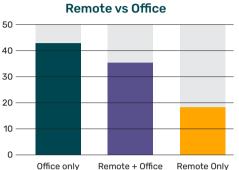■ Europe ■ North America ■ Asia-Pacific

With this in mind, in Q1 2021, Europe led the charts with almost 39% of the Kubernetes jobs, with North America in second place at 35%, while Asia-Pacific jobs were merely 5%.

Thus, Asia-Pacific has risen to second place this quarter, putting North America third.

What's the remote jobs scenario like?

Remote work mentioned

Remote work mentioned | Remote work not mentioned

Remote vs Office

Office only | Remote + Office | Remote Only

56%

However, it must be noted that there are different types of remote jobs, and not all are entirely office free.

As can be seen, "office only" jobs lead the way with almost 44% representation.

This is understandable since almost all the COVID-19 restrictions have been taken away.

Also good to see are "hybrid working" (Remote + Office) jobs are steady at second place.
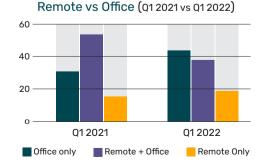
While the Remote only jobs are at third with almost 20% representation.

How has remote working changed over the quarters?

It has changed quite a bit.

"Remote only" jobs have increased quarter-on-quarter, while the "Office only" jobs have also raised this quarter.

In contrast, "Remote-but-sometimes-office" jobs have decreased a little this quarter compared to the one in 2021.

Remote vs Office (Q1 2021 vs Q1 2022)

Q1 2021 | Q1 2022

■ Office only ■ Remote + Office ■ Remote Only

What's the salary range?

Salary ranges for Kubernetes jobs in North America

Salary range (USD)

Salary ranges for Kubernetes jobs in Europe

Salary range (European countries is €)

200k
240k

The minimum salary offered in North America, on average, stands at **$123,126**, while the maximum salary (on average) offered stands at **$166,505.**

The Highest salary range is between **$200,000-240,000**.

Minimum Salary

€83,398

Maximum Salary

€170,380

The *minimum* salary offered in Europe, on average, stands at €83,398, while the *maximum* salary (on average) offered stands at €170,380.

Do take this with a grain of salt.

Europe is a vast, diverse continent, consisting of countries with varied living costs, economies, and technological status.

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How essential are certifications for a Kubernetes job? And if so, which are the important ones?
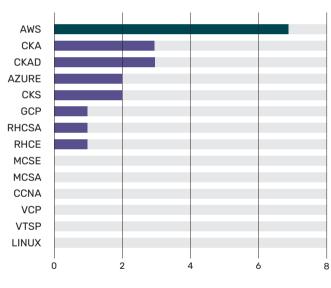
Certifications mentions

88%

Certifications still aren't a necessity for the majority of the jobs, but they are often seen as an advantage.

Of all the job descriptions this quarter, **more than 88% did not mention a certification requirement.**

So, if you don't have certifications, you can still apply for the majority of the Kubernetes jobs.

❯ So, which are the popular certifications one should consider completing?

Of the job descriptions that mention certifications, **AWS certifications** top the chart with almost **64%** representation.

This trend has been [reflected in the yearly 2021 report.](#) with AWS certifications representing 64% and 73%, respectively.

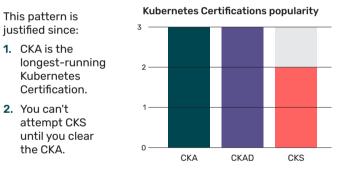So, if you wish to complete just one certification, you know which one to go for.

Kubernetes Certifications stand in second place, with Azure and GCP certifications.

❯ What's the trend for Kubernetes certifications for Q1 2022?

This quarter, **CKA** and **CKAD** represent **27%** of the certifications mentioned in job listings.

In Q1 2021, CKA represented **54%**, while for the entire year of 2021, it represented **52%** of the certifications mentioned.

The pattern is CKA > CKAD > CKS in terms of popularity.

This pattern is justified since:

1. CKA is the longest-running Kubernetes Certification.
2. You can't attempt CKS until you clear the CKA.

Kubernetes Certifications popularity

❯ What about the Cloud provider certifications?

As for the Cloud provider certifications, AWS dominates the chart, with Azure a distant second and GCP an even distant third.

Cloud Provider certifications popularity

What about CI/CD? How important is it for Kubernetes jobs?

57% 57% 57%

Of all the job listings this quarter, more than **57%** mentioned some sort of **CI/CD** tooling in their description.

70% 70% 70%

Almost **70%** were simple "**CI/CD**" mentions of these.

As far as specifics go, **Jenkins** comes at the top with 30% representation, with **Gitlab CI** and **CircleCI** sharing the second place with 16% of the mentions.

Popularity CI/CD tools

Tool	Value
CI/CD	39
Jenkins	18
Gitlab	9
Circled	9
Azure DevOps	8
Travis CI	7
Github Actions	4.5
Octopus Deploy	2
Bamboo	2
Spinnaker	2
Harness CD	
CodeFresh	
Juju	

Of the configuration management tools, which ones are popular?

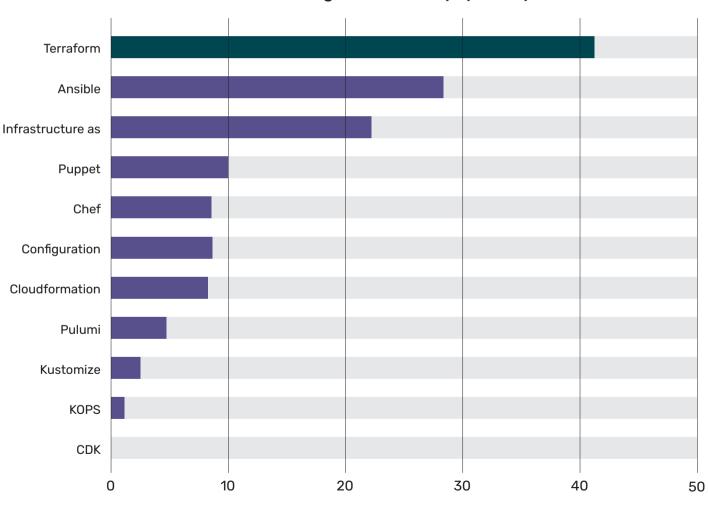In the dataset for this quarter, 58 jobs (59%) have mentioned at least one configuration management tool experience requirement, which is fair to say that these are more than relevant for Kubernetes jobs.

As seen in the chart, **Terraform** dominates this trend, with more than 43% of the jobs mentioning the tool as a requirement.

This dominance of Terraform has also been reflected in Q1 of 2021 and the yearly report of 2021, with 32% and 40% representation.

Ansible is second, with almost 29% of the jobs favouring the tool.

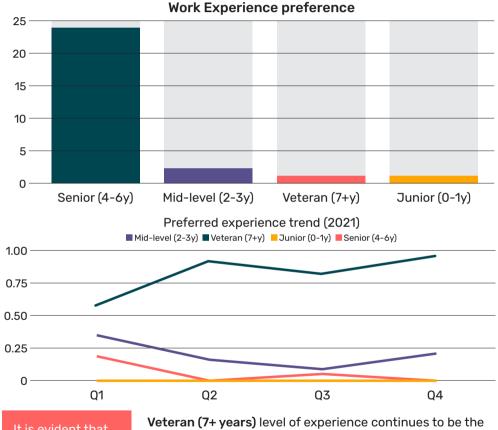Followed by **Puppet and Chef**.

Configuration tools popularity

How much work experience do companies seek in a Kubernetes engineer role?

Surprisingly, more than 70% of the job descriptions didn't mention experience during this quarter.

Of the ones that mentioned experience, what is the requested experience?

Work Experience mentioned

Work Experience preference

Preferred experience trend (2021)

Mid-level (2-3y) ■ Veteran (7+y) ■ Junior (0-1y) ■ Senior (4-6y)

It is evident that a **Senior level experience (4-6 years)** is the most sought-after for this quarter.

Veteran (7+ years) level of experience continues to be the least sought-after since Kubernetes was launched in 2014!
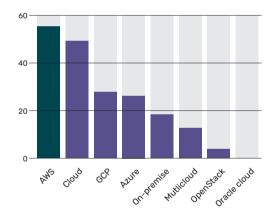
Sadly, **Junior (0-1 years)** level of experience is also the least sought-after — a trend which we hope will change in the following quarters.
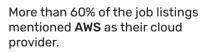
Senior-level experience has been the most sought-after for all the quarters of 2021.

Infrastructure location: which are the popular cloud providers?

In a dataset of 97 job listings, 191 instances of either a cloud provider or an infrastructure location term were mentioned.

In other words, job descriptions mentioned more than one cloud provider per listing.

More than 60% of the job listings mentioned **AWS** as their cloud provider.

54% of the job listings just mentioned **cloud** as their infrastructure locations without specifics.
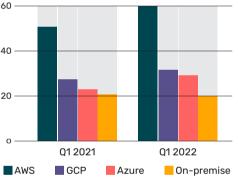
While **GCP** and **Azure** showed 29% and 31% representation among the job descriptions.

❯ Has the trend been the same over the quarters?

It's been almost identical.

In Q1 of 2021, the order was the same AWS > GCP > Azure > On-premises.

Infrastructure locations (Q1 2021 vs Q1 2022)
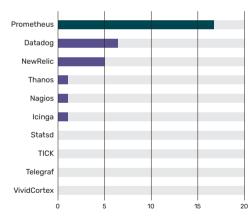

AWS **GCP** **Azure** **On-premise**

Conclusions from this analysis are:

1. AWS is unchallenged when it comes to the top cloud providers.
2. Although GCP stands in second place, there is very little between it and Azure, so they almost share the second place between them.
3. On-premise infrastructure location has been consistent, floating at ~20% representation.

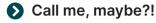## ❯ What about the monitoring stack? Which tools are popular?

Only **23%** of the job listings mentioned a monitoring tool experience in our dataset.

Of the monitoring tools mentioned, **Prometheus** leads the way, and that too with quite a distance.

Datadog comes in a distant second. Followed by **NewRelic, Thanos, Nagios, and Icinga**.

Prometheus was also the most popular for Q1 2021, with more than **21%** of job listings mentioning the monitoring tool.

❯ Call me, maybe?!

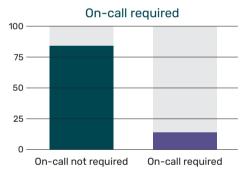*Let's face it. No one likes to be on-call rotation.*

But sometimes, it comes with the job.

How many times, exactly?

Well, thankfully, not a lot.

Only 13% of the jobs this quarter mentioned an on-call requirement.

On-call required

What's even better is that this stat for **Q1 2021** was at 20%.

On-call required (Q1 2021 vs Q1 2022)

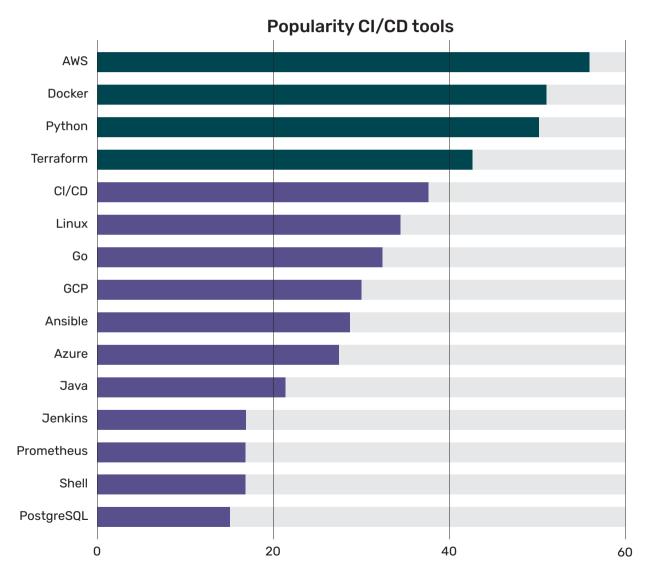**On-call required** **On-call not required**

Which popular technologies other than Kubernetes should you learn?

The following list is an excellent guide for engineers seeking to round out their skill set.

The most popular choices of technology among Kubernetes engineers are:

- ➔ Programming languages: **Python, Go,** and **Java.**

- ➔ Cloud platforms: **AWS, GCP,** and **Azure** (in that order).

- ➔ Operating systems: **Linux.**

- ➔ Infrastructure as Code: **Terraform.**

- ➔ Database management: **PostgreSQL.**

- ➔ Configuration management: **Ansible.**

- ➔ CI/CD: **Jenkins.**

It's essential to notice that if you already master Python and AWS, you can confidently apply for more than **60%** of job offers.

Popularity CI/CD tools

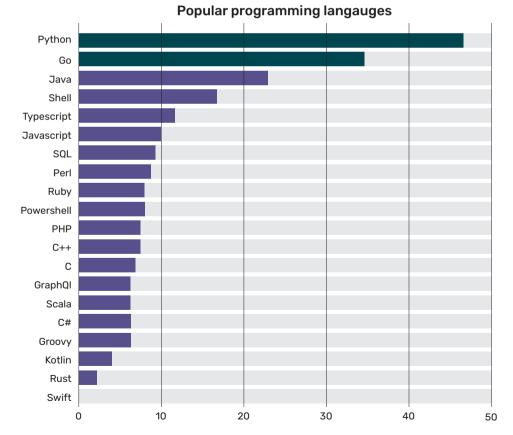| Technology	Value
AWS	57
Docker	51
Python	50
Terraform	43
CI/CD	38
Linux	34
Go	32
GCP	30
Ansible	28
Azure	27
Java	21
Jenkins	17
Prometheus	17
Shell	17
PostgreSQL	15

What about Programming languages? Which ones are the most in-demand?

Python continues to be the preferred programming language for the cloud, with more than 60% representation.

Go comes in second at almost **44%**.

Other frequently mentioned programming languages include **Java, Shell, Typescript, and Javascript**.

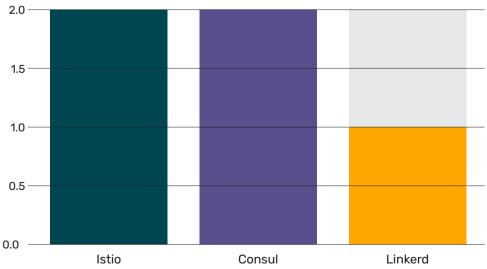### Has the trend been the same in Q1 2021?

Largely, yes.

In Q1 2021, **Python** led the charts with 67% representation, with **Go** in second place and **Java** and **Shell** following suite.

Service meshes: is there a demand for such tools?

Still not very apparent.

Only 4% of the jobs have displayed or mentioned a requirement for service meshes.

Of these, **Istio** and **Consul** garnered two mentions each this quarter, with Linkerd being mentioned in one job listing:

Popular programming langauges

Final Remarks

There was a lot of data mining here, and we hope you found some gold in the end!

Hopefully, this sheds some light on what companies look for when hiring a Kubernetes Engineer.
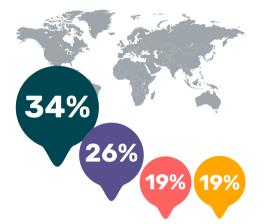
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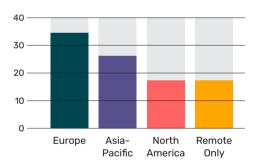
Could it have been better?

Would you like us to include a new category?

Let us know!

Where are the most Kubernetes job offers located?

In Europe.

34%

26%

19% **19%**

Europe	Asia-Pacific	North America	Remote Only

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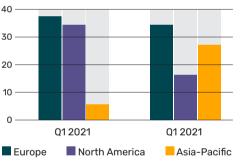
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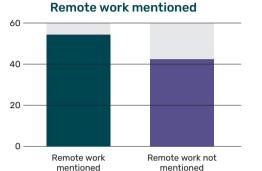
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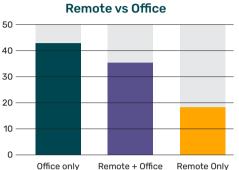| Q1 2021	Q1 2021

■ Europe   ■ North America   ■ Asia-Pacific

With this in mind, in Q1 2021, Europe led the charts with almost 39% of the Kubernetes jobs, with North America in second place at 35%, while Asia-Pacific jobs were merely 5%.

Thus, Asia-Pacific has risen to second place this quarter, putting North America third.

What's the remote jobs scenario like?

Remote work mentioned

Remote work mentioned	Remote work not mentioned

Remote vs Office

Office only	Remote + Office	Remote Only

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However, it must be noted that there are different types of remote jobs, and not all are entirely office free.

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This is understandable since almost all the COVID-19 restrictions have been taken away.

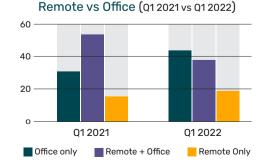Also good to see are "hybrid working" (Remote + Office) jobs are steady at second place.

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Remote vs Office (Q1 2021 vs Q1 2022)

Q1 2021	Q1 2022

■ Office only   ■ Remote + Office   ■ Remote Only

What's the salary range?

Salary ranges for Kubernetes jobs in North America

Salary range (USD)

Salary ranges for Kubernetes jobs in Europe

Salary range (European countries is €)

200k 240k

The minimum salary offered in North America, on average, stands at **$123,126**, while the maximum salary (on average) offered stands at **$166,505.**

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Minimum Salary

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How essential are certifications for a Kubernetes job? And if so, which are the important ones?

Certifications mentions

Bar chart showing "No mentions of certifications" (approximately 86) vs "Mentions of certifications" (approximately 11) on a scale of 0 to 100.
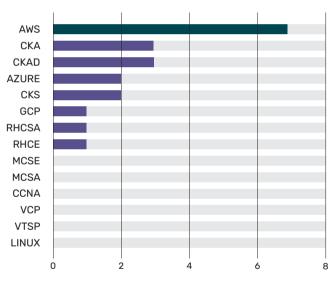
88%

Certifications still aren't a necessity for the majority of the jobs, but they are often seen as an advantage.

Of all the job descriptions this quarter, **more than 88% did not mention a certification requirement.**

So, if you don't have certifications, you can still apply for the majority of the Kubernetes jobs.

➤ **So, which are the popular certifications one should consider completing?**

Of the job descriptions that mention certifications, **AWS certifications** top the chart with almost **64%** representation.

Horizontal bar chart "Certifications popularity" with scale 0 to 8:
- AWS: ~7
- CKA: ~3
- CKAD: ~3
- AZURE: ~2
- CKS: ~2
- GCP: ~1
- RHCSA: ~1
- RHCE: ~1
- MCSE: 0
- MCSA: 0
- CCNA: 0
- VCP: 0
- VTSP: 0
- LINUX: 0

This trend has been <u>reflected in the yearly 2021 report.</u> with AWS certifications representing 64% and 73%, respectively.

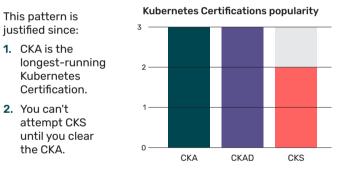So, if you wish to complete just one certification, you know which one to go for.

Kubernetes Certifications stand in second place, with Azure and GCP certifications.

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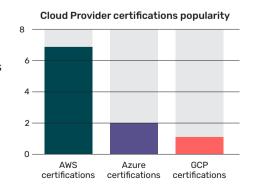
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The pattern is CKA > CKAD > CKS in terms of popularity.

This pattern is justified since:

1. CKA is the longest-running Kubernetes Certification.
2. You can't attempt CKS until you clear the CKA.

Kubernetes Certifications popularity

Bar chart with scale 0 to 3:
- CKA: 3
- CKAD: 3
- CKS: 2

➤ **What about the Cloud provider certifications?**

As for the Cloud provider certifications, AWS dominates the chart, with Azure a distant second and GCP an even distant third.

Cloud Provider certifications popularity

Bar chart with scale 0 to 8:
- AWS certifications: ~7
- Azure certifications: 2
- GCP certifications: 1

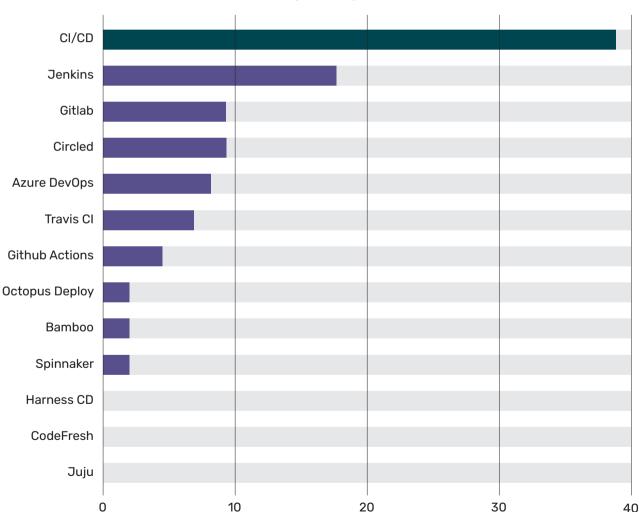# What about CI/CD? How important is it for Kubernetes jobs?

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Of all the job listings this quarter, more than **57%** mentioned some sort of **CI/CD** tooling in their description.

70% 70% 70%

Almost **70%** were simple "**CI/CD**" mentions of these.

As far as specifics go, **Jenkins** comes at the top with 30% representation, with **Gitlab CI** and **CircleCI** sharing the second place with 16% of the mentions.

Popularity CI/CD tools

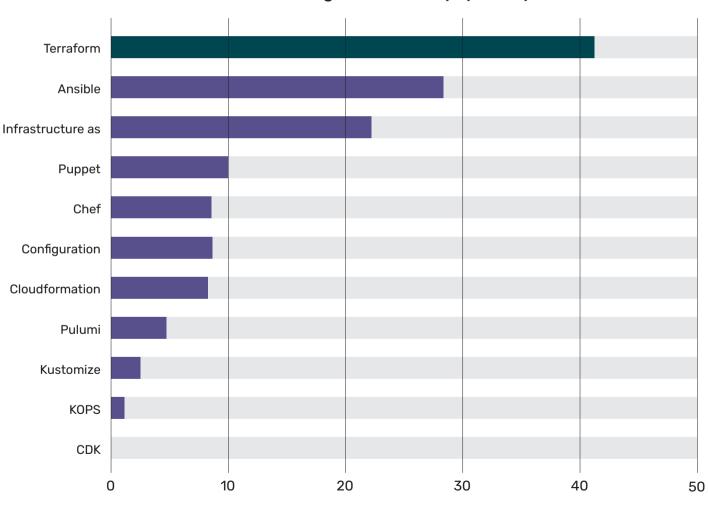# Of the configuration management tools, which ones are popular?

In the dataset for this quarter, 58 jobs (59%) have mentioned at least one configuration management tool experience requirement, which is fair to say that these are more than relevant for Kubernetes jobs.

As seen in the chart, **Terraform** dominates this trend, with more than 43% of the jobs mentioning the tool as a requirement.

This dominance of Terraform has also been reflected in Q1 of 2021 and the yearly report of 2021, with 32% and 40% representation.

Ansible is second, with almost 29% of the jobs favouring the tool.

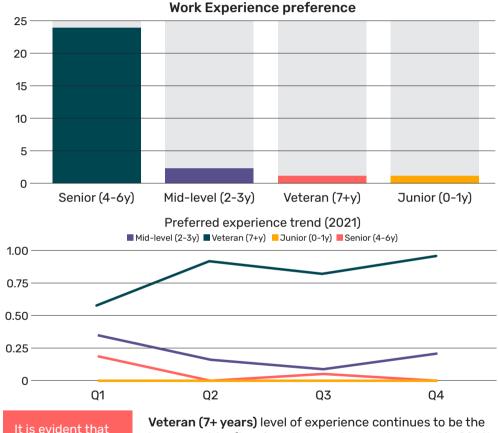Followed by **Puppet and Chef**.

Configuration tools popularity

How much work experience do companies seek in a Kubernetes engineer role?

Surprisingly, more than 70% of the job descriptions didn't mention experience during this quarter.

Work Experience mentioned

Experience not mentioned | Experience not mentioned

> **Of the ones that mentioned experience, what is the requested experience?**

Work Experience preference

Senior (4-6y) | Mid-level (2-3y) | Veteran (7+y) | Junior (0-1y)

Preferred experience trend (2021)

■ Mid-level (2-3y) ■ Veteran (7+y) ■ Junior (0-1y) ■ Senior (4-6y)

Q1 | Q2 | Q3 | Q4

It is evident that a **Senior level experience (4-6 years)** is the most sought-after for this quarter.

Veteran (7+ years) level of experience continues to be the least sought-after since Kubernetes was launched in 2014!
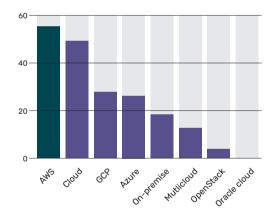
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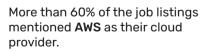
Senior-level experience has been the most sought-after for all the quarters of 2021.

Infrastructure location: which are the popular cloud providers?

In a dataset of 97 job listings, 191 instances of either a cloud provider or an infrastructure location term were mentioned.

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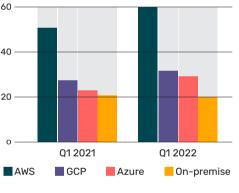
While **GCP** and **Azure** showed 29% and 31% representation among the job descriptions.

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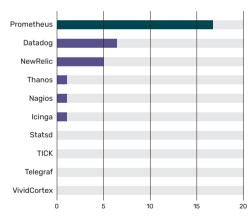Infrastructure locations (Q1 2021 vs Q1 2022)

Conclusions from this analysis are:

1. AWS is unchallenged when it comes to the top cloud providers.
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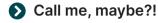## ❯ What about the monitoring stack? Which tools are popular?

Only **23%** of the job listings mentioned a monitoring tool experience in our dataset.

Of the monitoring tools mentioned, **Prometheus** leads the way, and that too with quite a distance.

Datadog comes in a distant second. Followed by **NewRelic, Thanos, Nagios, and Icinga**.

Prometheus was also the most popular for Q1 2021, with more than **21%** of job listings mentioning the monitoring tool.
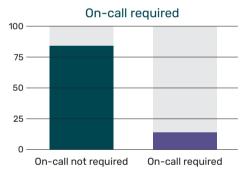
❯ Call me, maybe?!

Let's face it. No one likes to be on-call rotation.

But sometimes, it comes with the job.

How many times, exactly?

Well, thankfully, not a lot.

Only 13% of the jobs this quarter mentioned an on-call requirement.

On-call required

What's even better is that this stat for **Q1 2021** was at 20%.

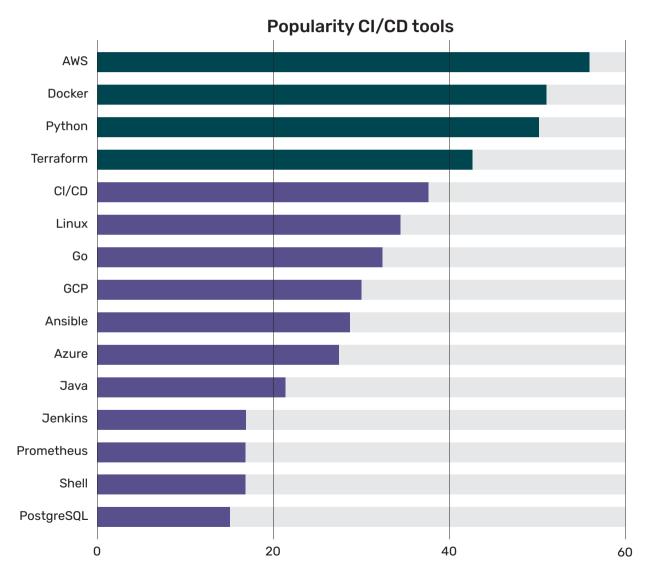On-call required (Q1 2021 vs Q1 2022)

Which popular technologies other than Kubernetes should you learn?

The following list is an excellent guide for engineers seeking to round out their skill set.

The most popular choices of technology among Kubernetes engineers are:

- ⊕ Programming languages: **Python, Go,** and **Java.**

- ⊕ Cloud platforms: **AWS, GCP,** and **Azure** (in that order).

- ⊕ Operating systems: **Linux.**

- ⊕ Infrastructure as Code: **Terraform.**

- ⊕ Database management: **PostgreSQL.**

- ⊕ Configuration management: **Ansible.**

- ⊕ CI/CD: **Jenkins.**

It's essential to notice that if you already master Python and AWS, you can confidently apply for more than **60%** of job offers.

Popularity CI/CD tools

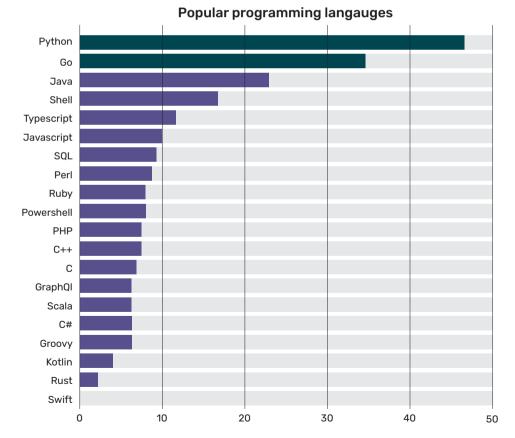| Tool	Value
AWS	~57
Docker	~52
Python	~51
Terraform	~43
CI/CD	~38
Linux	~34
Go	~32
GCP	~29
Ansible	~28
Azure	~27
Java	~21
Jenkins	~17
Prometheus	~17
Shell	~17
PostgreSQL	~15

Axis: 0, 20, 40, 60

What about Programming languages? Which ones are the most in-demand?

Python continues to be the preferred programming language for the cloud, with more than 60% representation.

Go comes in second at almost **44%**.

Other frequently mentioned programming languages include **Java, Shell, Typescript, and Javascript**.

Popular programming langauges

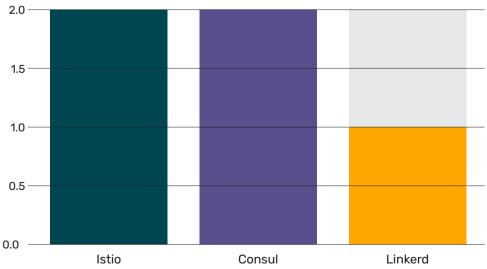## Has the trend been the same in Q1 2021?

Largely, yes.

In Q1 2021, **Python** led the charts with 67% representation, with **Go** in second place and **Java** and **Shell** following suite.

Service meshes: is there a demand for such tools?

Still not very apparent.

Only 4% of the jobs have displayed or mentioned a requirement for service meshes.

Of these, **Istio** and **Consul** garnered two mentions each this quarter, with Linkerd being mentioned in one job listing:

Final Remarks

There was a lot of data mining here, and we hope you found some gold in the end!

Hopefully, this sheds some light on what companies look for when hiring a Kubernetes Engineer.

Did you like what you read?

Could it have been better?

Would you like us to include a new category?

Let us know!