

Kubernetes jobs

Trend report 2022 Q3

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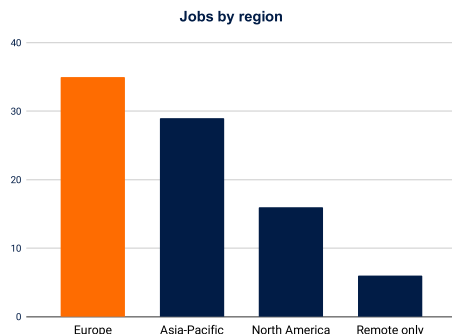
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Where are most Kubernetes job offers located?

➤ In Europe.



At least, that's what the numbers suggest.



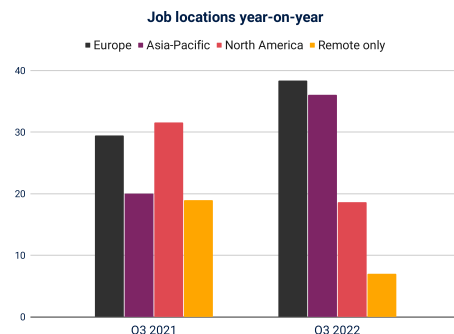
Out of the 86 job descriptions we published this quarter, 35 (almost 40%) of these were from Europe.

Followed by 29 job descriptions from the Asia-Pacific region, 16 from North America, and only 6 job listings were Remote only (more on this later).

➤ Does Europe lead the charts all year?

Not really.

In fact, in Q3 of 2021, the North American region represented the most jobs with a 32% stake, while Europe was close with a 29% representation.



It also must be noted that the COVID-19 situation in 2021 wasn't the same in all countries; some lifted restrictions earlier, while some took longer.

Thus we can't compare the Q3 numbers of 2021 with those of 2022 at face value.

➤ What about remote jobs? What's the current scenario like?

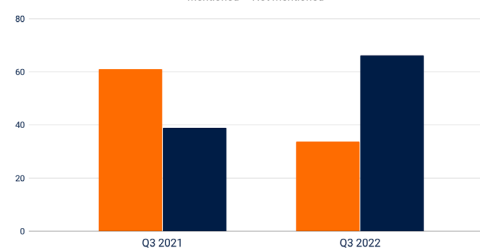
It's complicated, and how!

Remote work mentions stand at 34% of the total jobs published this quarter.

This metric is down by almost half when compared to the Q3 2021 quarter.

34%

Remote work mentions (Q3 2021 vs Q3 2022)



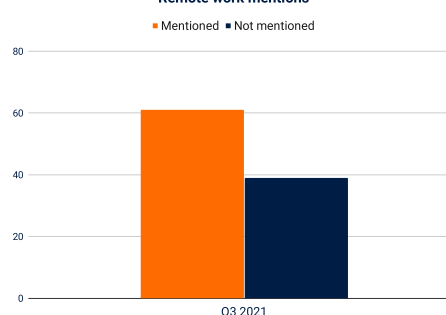
It also must be noted that there are different remote work tiers.

Some remote-only jobs allow employees to work from anywhere in the world without needing to visit any of the company offices.

Then there are remote-hybrid jobs that require the employee to be present in the same country or state with occasional office visits.

This quarter, a total of 23 job descriptions mentioned a remote-hybrid working setup, while only 6 job descriptions asked for a remote-only setup.

Remote work mentions

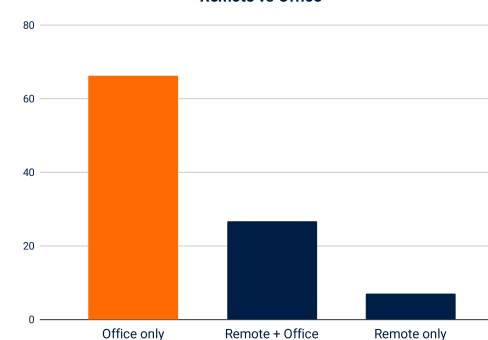


➤ Has the scenario changed over the quarters?

It has.

If we normalise and then compare the numbers for Q3 of 2021 vs 2022, we discover something interesting.

Remote vs Office



What is apparent is the fall of remote work and the rise of office-only jobs between the two quarters.

What is the reason for the fall?

There could be numerous reasons contributing to the tilt.

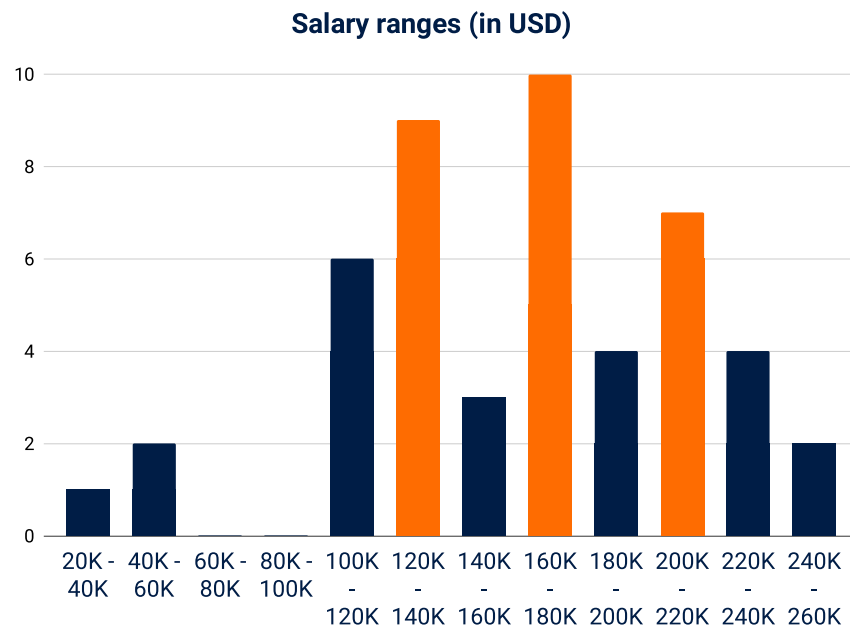
Still, one of the reasons could be the lifting of the COVID restrictions and the industry inviting its employees to the offices (see what Apple is doing).

What's the salary range?

We have divided the salary ranges into two categories:

- 1 North American Kubernetes jobs (normalised to be in USD), and
- 2 European Kubernetes jobs (normalised to be in EUR).

➤ Salary ranges for American jobs in USD



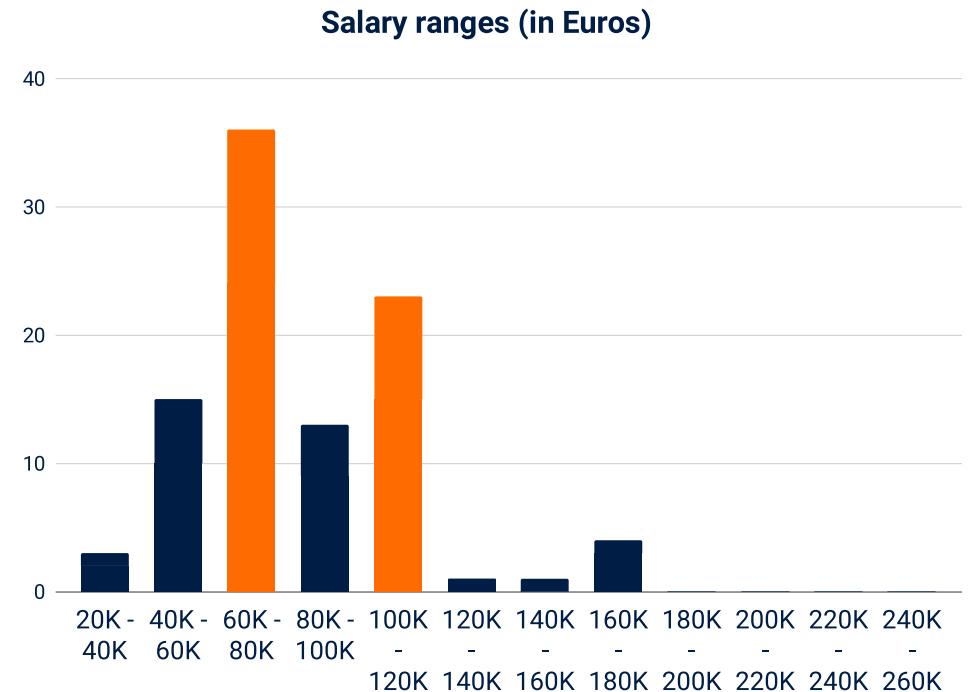
The minimum salary offered in America, on average, stands at **\$139,269**, while the maximum salary (on average) offered stands at **\$174,246**.

The minimum average salary has increased by 13%, and the maximum average salary has increased 12% over Q3 of 2021, which is a positive sign.

The highest salary range for Q3 2022 is between \$200,000–250,000, which is also a whopping 25% increase over the highest salary range for Q3 2021.

Overall, it's good to see that the average minimum salaries are increasing at a reasonable rate so that the positions at the top and the entry-level positions also seem desirable.

➤ Salary ranges for European jobs in Euros



Minimum Salary

€89,729

Maximum Salary

€114,337

The minimum salary offered in Europe, on average, stands at €89,729, while the maximum salary (on average) is at €114,337

We have recently started analysing the salary ranges for Europe and America differently, so we can't compare these numbers with Q3 2021.

However, the minimum salary range has increased more than 7% over the last quarter, i.e., Q2 2022, which is encouraging.

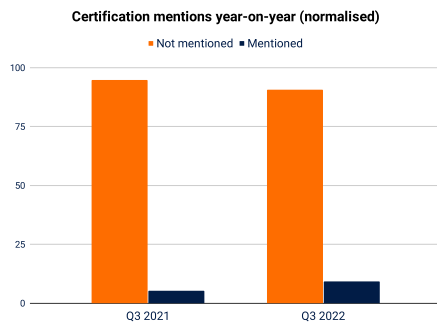
Note: Europe is a vast, diverse continent with varied living costs, economies, and technological status. Thus, we can't be conclusive with these numbers, but we can get a decent representation of the state of salaries in Europe.

Are certifications necessary for a Kubernetes job?

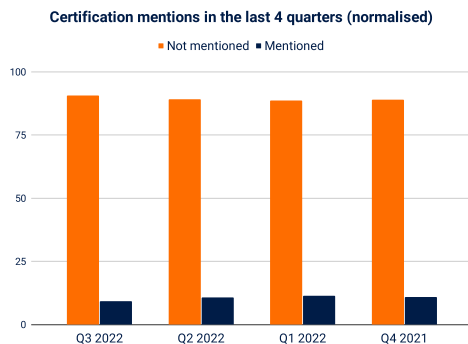
If so, which ones are popular?

The case with certifications continues to be the same: it's seen as an advantage but has very few mentions in job descriptions.

In this quarter, only a handful of 8 job descriptions (9% of the total jobs listed) mentioned a requirement for certification. If this seems less, in Q3 2021, more than 94% of the jobs didn't convey a requirement for certification.



For better context, let's look at the stats for certification requirements over the last four quarters. Mind you, these numbers are normalised.



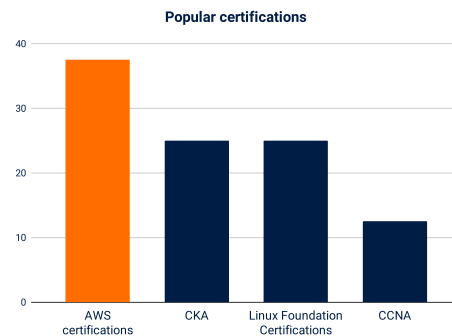
It can be seen that certifications aren't mentioned in most of the job descriptions.

Of the job descriptions that mention certifications, which ones are popular?

What's interesting to see is that 50% of the jobs that mention certifications didn't mention specifics but just the word certification.

These were primarily mentioned in the *Nice to have / Plus* category.

And when it comes to the specifics, AWS Certifications were mentioned in almost 38% (of the jobs that mention certification requirements) of the times, CKA at 25%, Linux foundation certifications at 25%, and CCNA at 12.5 % share.



Year-on-year, there have been few changes.

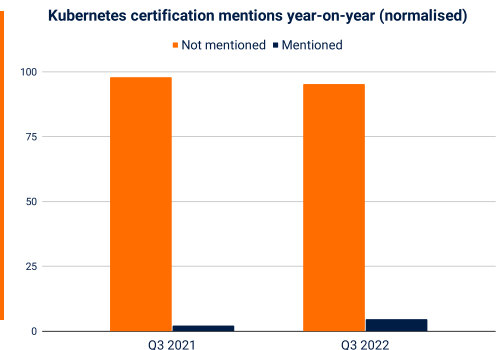
In Q3 2021, AWS certifications were at the top of the certifications list with a 60% representation and were followed by GCP and Azure certifications, which weren't mentioned in this quarter.

What's the trend for Kubernetes certifications for Q3 2022?

Kubernetes certifications are still a plus to have and not a requirement.

Only 4% of the jobs that we published this quarter mentioned a need for a Kubernetes certification.

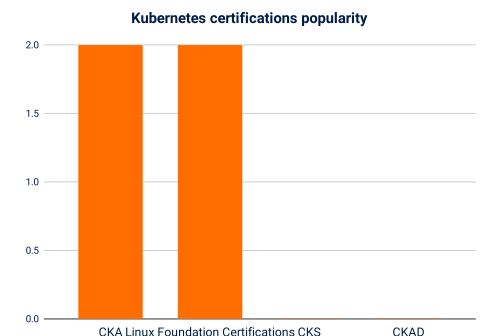
Although this is too low to be meaningful, the number has grown almost twice, as it was at a measly 2% in Q3 of 2021.



Of the jobs that require Kubernetes certifications, half mentioned the Certified Kubernetes Administrator (CKA), while the other half mentioned the generic **Linux Foundation certification** (that could either be the KCNA, CKAD, CKA or CKS).

Note: Do remember that only 2 job listings each, published in the entire quarter, mentioned the CKA and Linux foundation certifications.

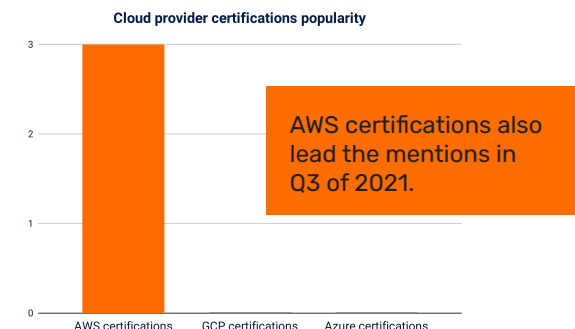
Since the sample size is small, we shouldn't derive any conclusions about the popularity of the Kubernetes certifications.



What about the Cloud provider certifications?

Of the 86 job listings published this quarter, there were only 3 mentions of a cloud provider certification.

All of these 3 mentions were for AWS certifications!



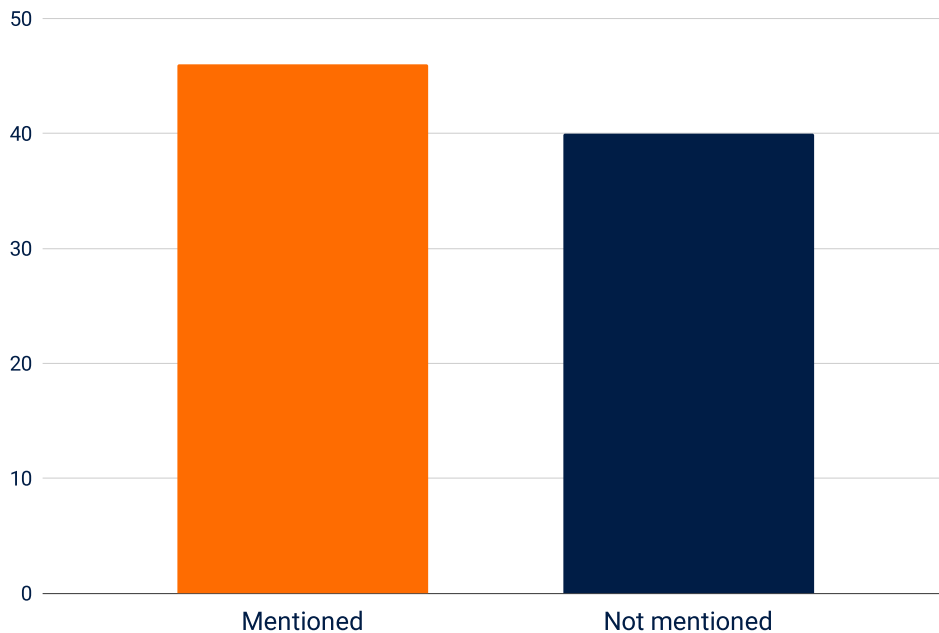
What about Continuous Integration/Continuous Deployment tools? How important are these for Kubernetes jobs?

➤ CI/CD tools are more than essential for Kubernetes jobs.

53%

In this quarter, 53% of the jobs mentioned a CI/CD tool as a requirement.

CI/CD mentions

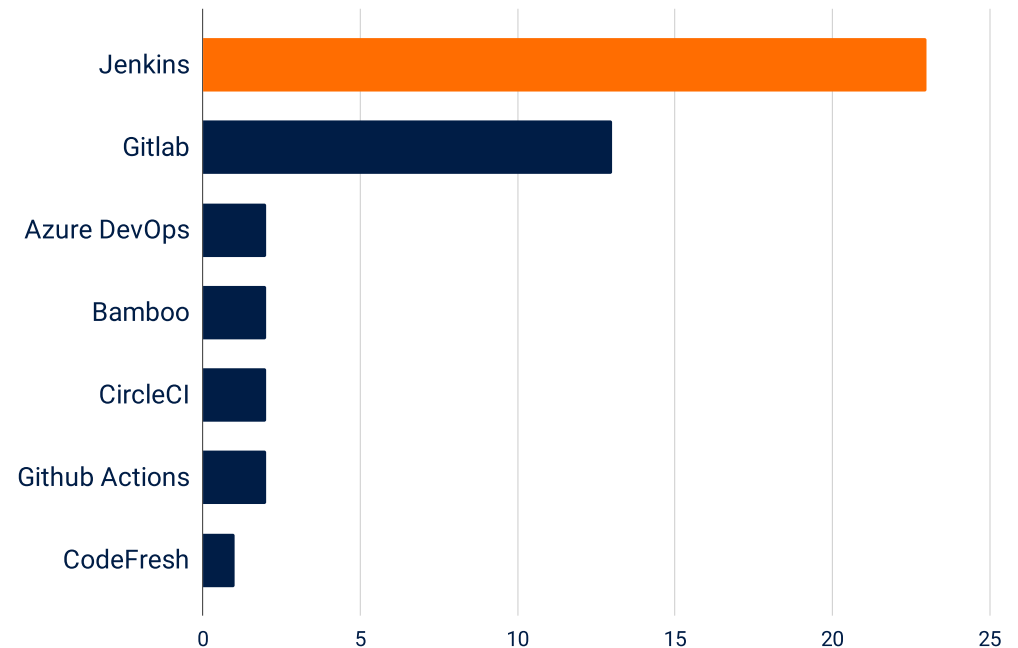


What's also interesting to know is that of the jobs that mention CI/CD, almost 83% of the jobs did not specify the tool and just said the term.

➤ What CI/CD tools are popular?

Jenkins is still topping the list with more than 50% of the mentions, Gitlab is in second place with 29% representation, and Azure DevOps coming in as a distant third with almost 5% representation.

Popular ci/cd tools



What about configuration management tools?

How important are these for a Kubernetes job?

It's a
50-50.

Almost 50% of the jobs we published this quarter mentioned a configuration management tool.

This metric had fallen by 8% if we compare it with the numbers for Q3 2021 when it was at 58%.

➤ What about specifics? Is any configuration management tool in demand?

Terraform.

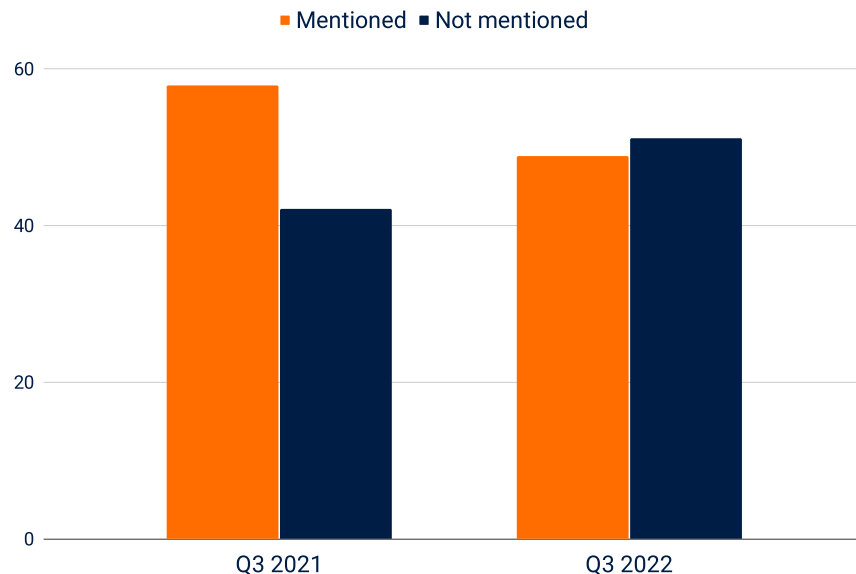
For all the job descriptions that specified the configuration management tool, Terraform was mentioned in more than 76% of these.

The same trend was reflected in Q3 of 2021, where Terraform was mentioned in 74% of the job descriptions that specified the configuration management tool.

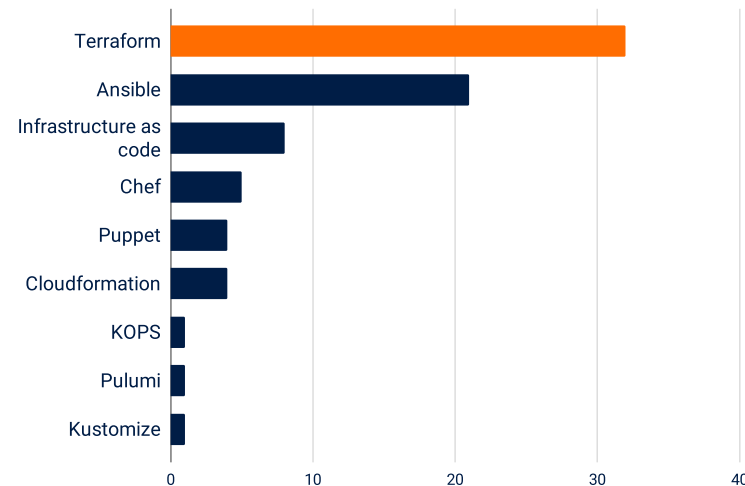
Ansible comes in second place with a 50% representation, while 24% of the jobs just mentioned the term 'configuration management tool'.

Infrastructure as Code (IAC) came in at a distant fourth with a 19% representation.

Configuration management tool mentions year-on-year (normalised)



Configuration management tool popularity



It can be said that:

1. Configuration management tool skills are in high demand.
2. If you are to learn/gain experience in one such tool, choose Terraform.

How much experience do companies seek?

In this quarter, only 27% of the jobs mentioned an experience requirement such as senior, mid-level or junior.

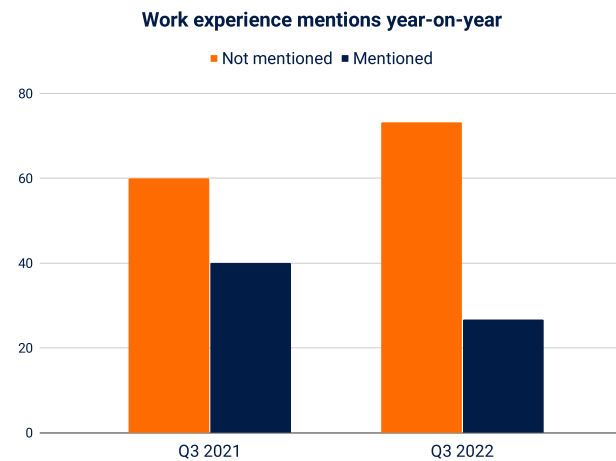


Was this metric any different in Q3 2021?

Slightly

In the same quarter last year, almost **40%** of the job listings mentioned an explicit experience requirement.

➤ Of the ones that mention experience, what is the polarity?



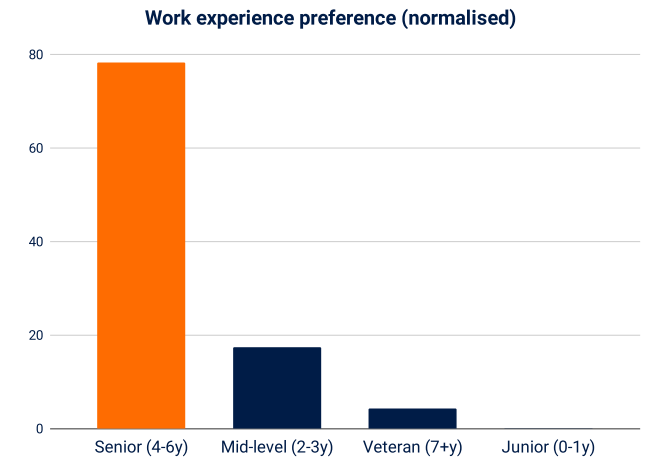
From the numbers, it's undeniable what the companies are looking for: Senior-level experience.

This quarter, of the job listings that mention experience, 78% of these mentioned senior-level experience.

The mid-level experience came in at 17%, and a distant third was the veteran level (7+ years) experience at 4%.

And sadly, there wasn't a single mention of a junior-level experience in our listings for this quarter.

➤ What was the trend in Q3 2021?



Wasn't very different.

Commonalities between the two quarters and takeaways for us:

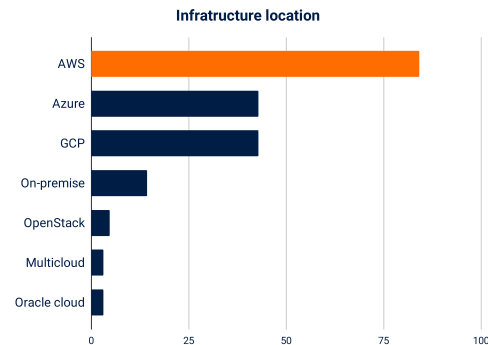
- 1 Senior-level (4-6 years) experience is the most sought-after.
- 2 Junior-level roles are very scarce!
- 3 Veteran-level (7+ years) experience is scarce too! (I guess we all knew that)

Infrastructure location: where is it? And which are the popular cloud providers?

73% This quarter, more than 73% of job listings mentioned their infrastructure location, and there is more to it!

85% Of the mentions, a staggering 85% of these were for AWS, followed by Azure and GCP, garnering half of the mentions at 42% each.

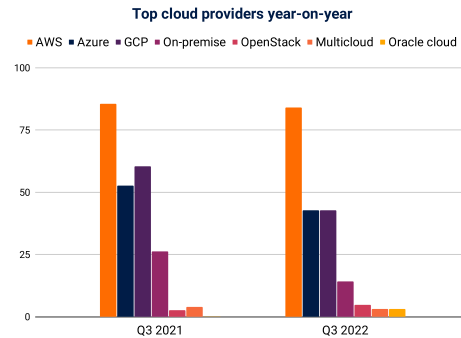
15% On-premise locations continue to hover at around 15%.



➤ **Has the trend been the same year-on-year?**

Mostly yes.

In Q3 of 2021, the order was almost the same: AWS > GCP > Azure > On-premises, wherein the numbers for GCP were slightly better than Azure, while these were the same for Q3 2022.



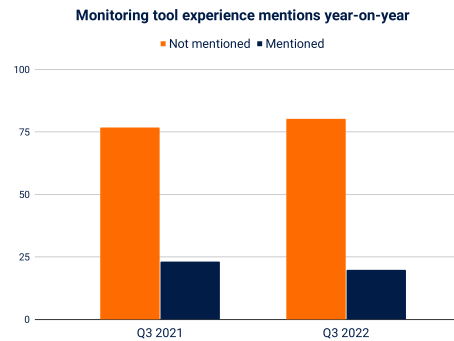
Conclusions from this analysis are:

- 1** AWS is the undisputed champion regarding the preferred infrastructure location.
- 2** Azure and GCP are the next most preferred infrastructure locations.
- 3** On-premise infrastructure location has been consistent throughout the quarter. It has been floating between the 15-20% range.

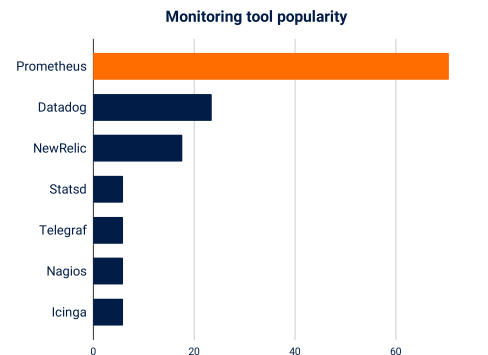
➤ **What about the monitoring stack? Is it important?**

As per our dataset for this quarter, more than 80% of the jobs didn't mention a monitoring tool!

This metric wasn't very different in Q3 of 2021 as well, with almost 76% of the jobs not mentioning a monitoring tool experience back then!



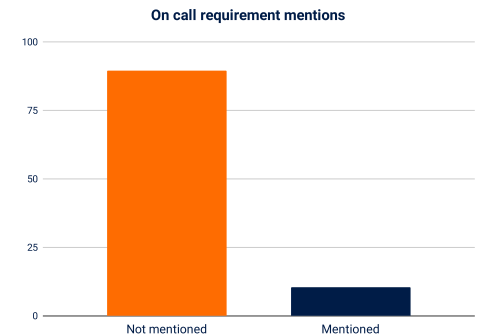
Regarding the mentions of monitoring tools, *Prometheus* dominates it with 70% representation, followed by *Datadog* in second place and *NewRelic* in third place.



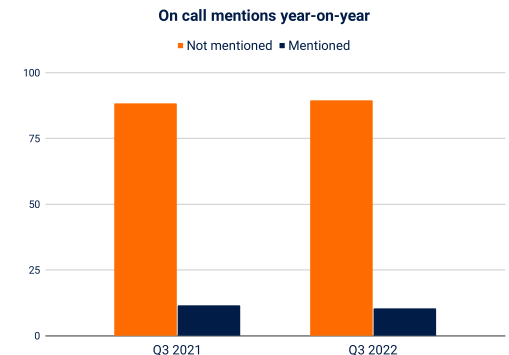
➤ **Call me, maybe?!**

It's a good song, but no one wants to be on-call, period!

And thankfully, only **10%** of the jobs we published in this quarter mentioned an *on-call* requirement.



What's also interesting to see is this metric has fallen 5% year-on-year, which is a good sign!



Which popular technologies other than Kubernetes should you learn?

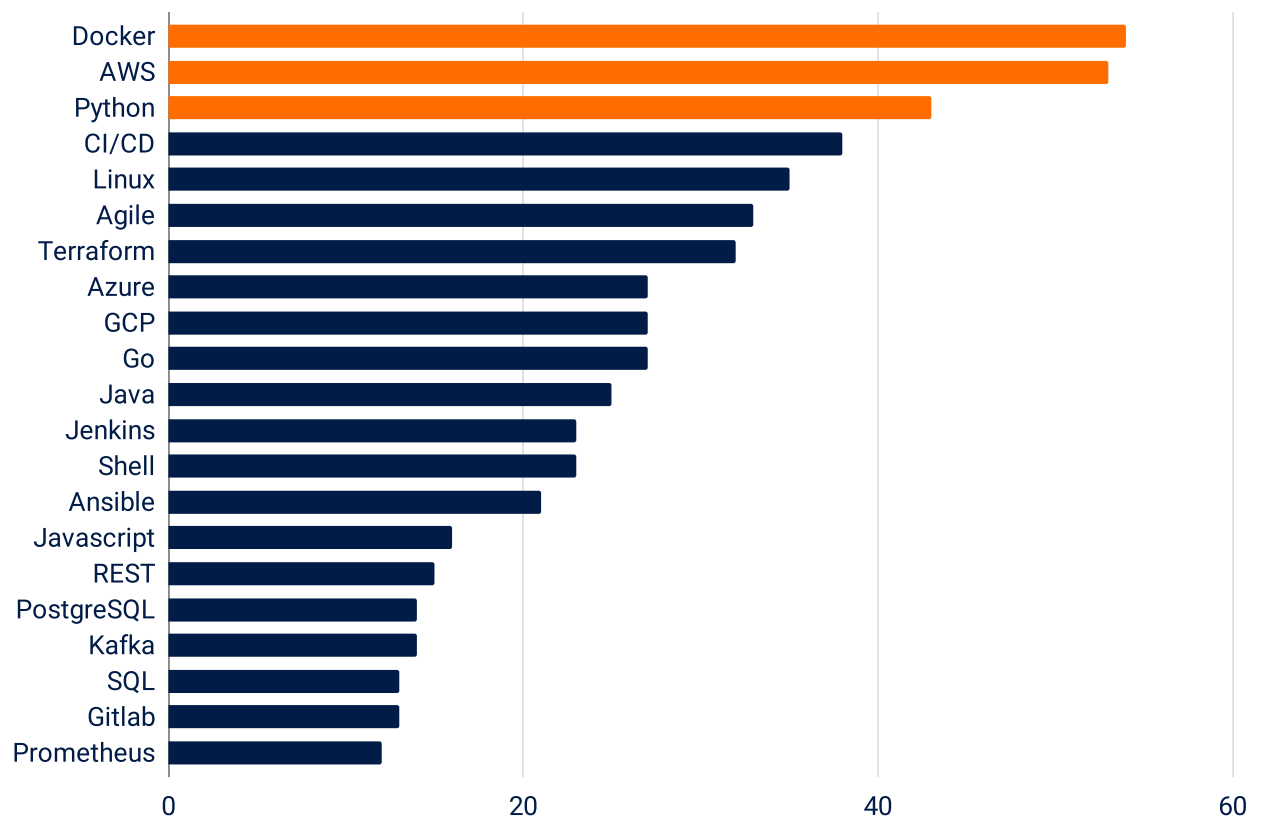
The following list is an excellent guide for engineers seeking to round out their skill sets.

The most popular choices of technology among Kubernetes engineers are:

- ✓ Programming languages: **Python, Go** and **Java**.
- ✓ Cloud platforms: **AWS, Azure** and **GCP** (in that order).
- ✓ Containers: **Docker**.
- ✓ 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.

Popular technologies

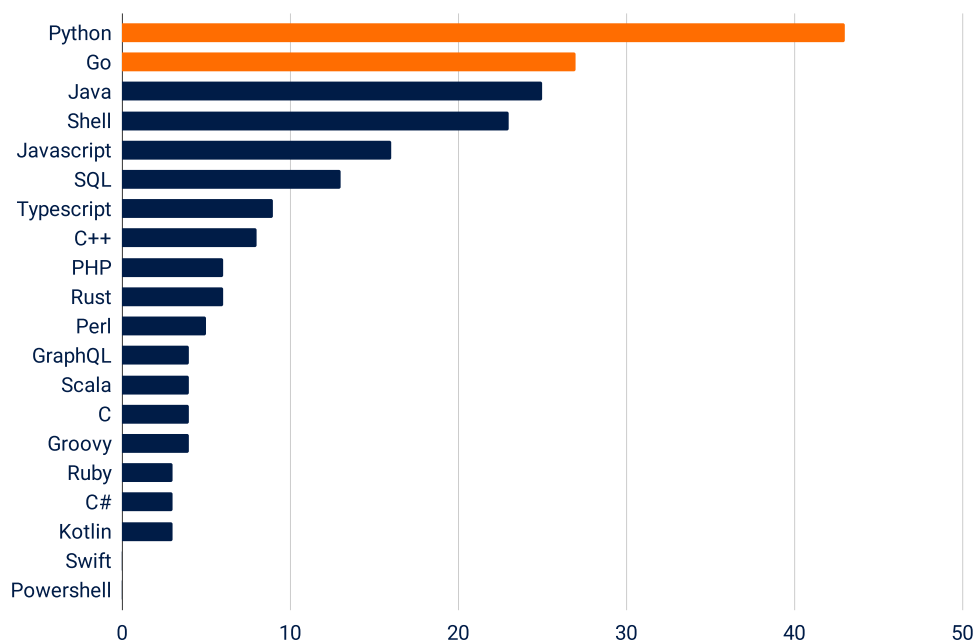


And what about programming languages?

Which ones are the most in demand?

Almost 74% of the job listings this quarter mentioned at least one programming language, quarter-on-quarter; this has dropped 4%.

Popular programming languages



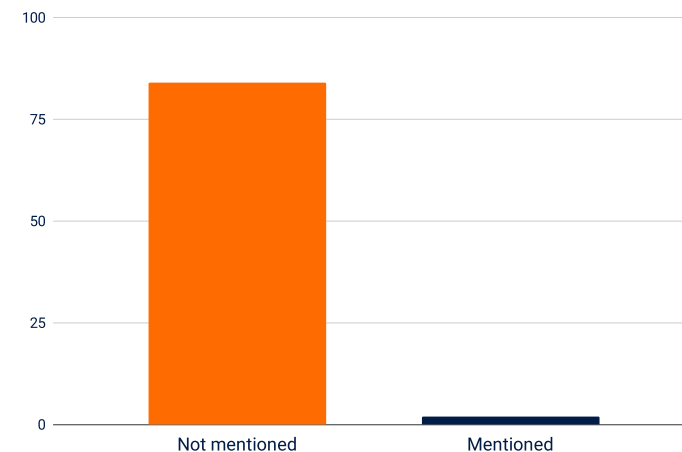
Here are the takeaways from our Programming languages analysis:

- 1 Python is the undisputed programming language King. It has topped all of the quarterly charts we have published.
- 2 Go is a close second in demand, and it has also been reflected in the last four quarters that we analysed.
- 3 Other important programming languages are: Java, Shell, Javascript, Rust, and Ruby.

Service meshes: How relevant are they?

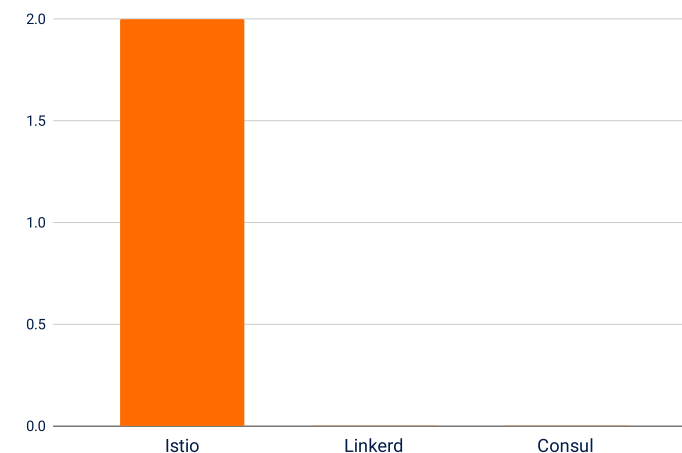
A whopping 97% of the job descriptions we published this quarter didn't mention a service mesh experience!

Service mesh mentions



And the roughly 3% mentions that were, these all were for Istio.

Popular service mesh



Final Remarks

That was some data mining there!

Hopefully, you learned something new from our report.

Every quarter, we try our best to analyse our data so you can derive key patterns regarding technologies/skills in the current Kubernetes job market.

Did you like what you read? Could it have been better?

Would you like us to include a new category?

Let us know!