The state of Kubernetes jobs

MARKET REPORT 2024 Q3

kube CAREERS

Table of Contents

Kubernetes Job market trends for Q3 2024 3
How much does a Kubernetes job pay in Q3 2024? 4
Where are most of the Kubernetes job offers located? 5
What's the average Kubernetes salary in North America? 6
What is the average Kubernetes salary in Europe? 7
What about Kubernetes salaries in APAC and LATAM? 8
The Kubernetes job market seeks software engineers, DevOps and Platform Engineers 9
What was the nature of work required for these titles? 10
What is the preferred experience level for most Kubernetes jobs? 11
7 out of 10 jobs allow remote work of some sort! 12
Remote work doesn't mean you can work from anywhere 13
How much do remote Kubernetes jobs pay? 14
What is the average salary for remote roles restricted to a specific country? 15
What about remote jobs that require working within specific business hours? 16
What are the average salaries for hybrid roles (office + home)? 17
If these are remote job salaries, what about regular jobs in the office? 18
Kubernetes jobs with on-call rota 19
How vital are certifications for a Kubernetes job? 20
Popular technologies for Kubernetes jobs 21
Which programming languages are in demand the most for Kubernetes jobs? 22
What CI/CD tools are popular in Kubernetes job descriptions? 23
Is GitOps popular in Kubernetes jobs? 24
What configuration management tools are popular? 25
Popular cloud providers for running Kubernetes 26
Observability adoption in Kubernetes 27
Conclusion 28

Kubernetes Job market trends for Q3 2024

Is the Kubernetes job market prospering or regressing in 2024? What skillsets should applicants possess to land their next Kubernetes job?

Have the average salaries increased? Or have they hit a plateau?

Let's try to answer the above questions (and many more) with our **State of the Kubernetes job market report for Q3 2024.**

Before we go ahead, here are a few facts about our dataset:

This quarter, we collected **8772** jobs, and meticulously filtering and manually tagged **1607** job descriptions that:

- **Require Kubernetes experience.**
- **Mention a clear salary range.**
- **Are listed by companies (and not recruitment agencies).**

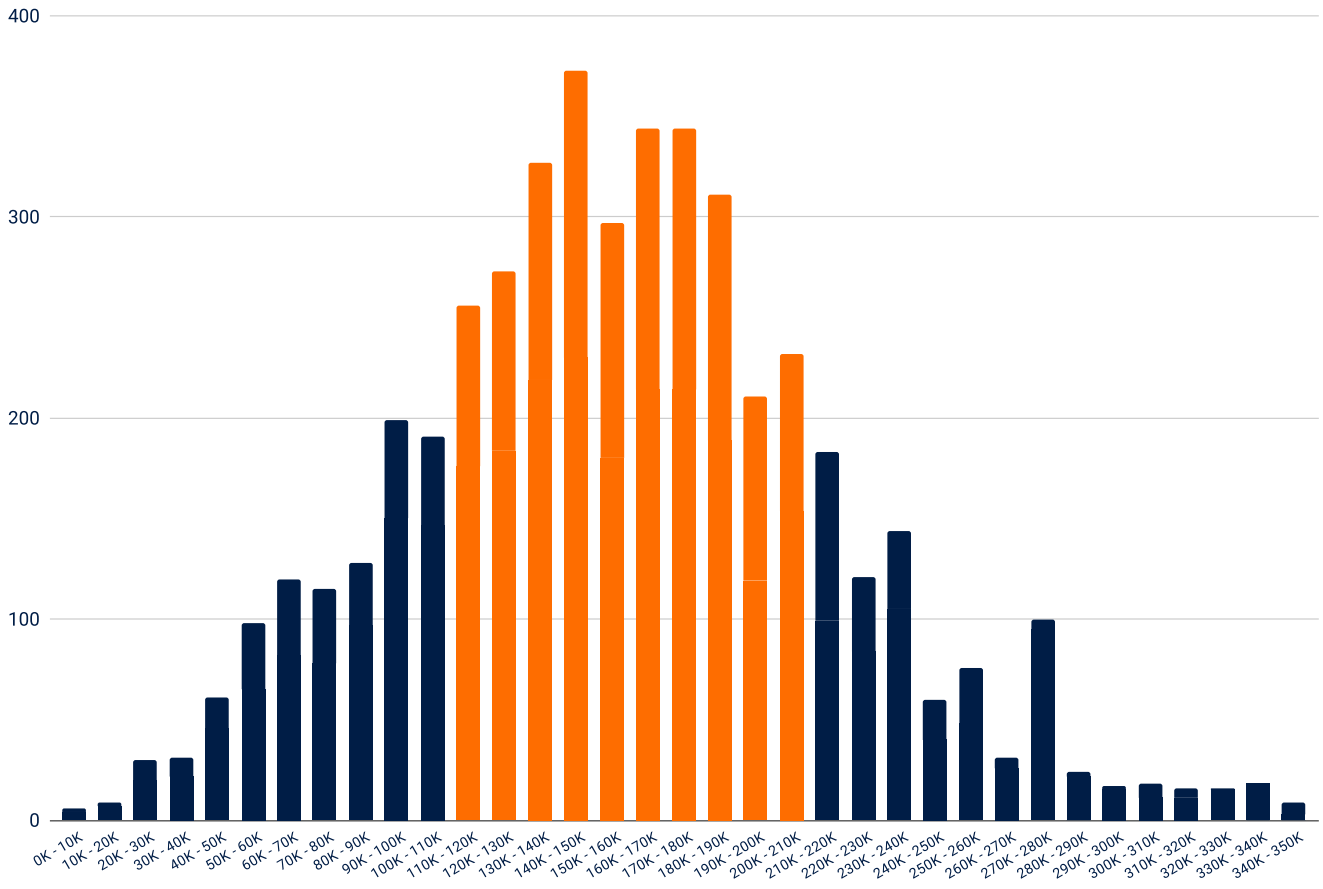
Do consider the above factors while looking at the numbers.

Let's begin!

How much does a Kubernetes job pay in Q3 2024?

Currently, a Kubernetes job pays an average salary between ***$129,049*** and ***$187,219***.
Which comes to an average worldwide salary of ***$158,134***.

Average Kubernetes salaries (Worldwide)

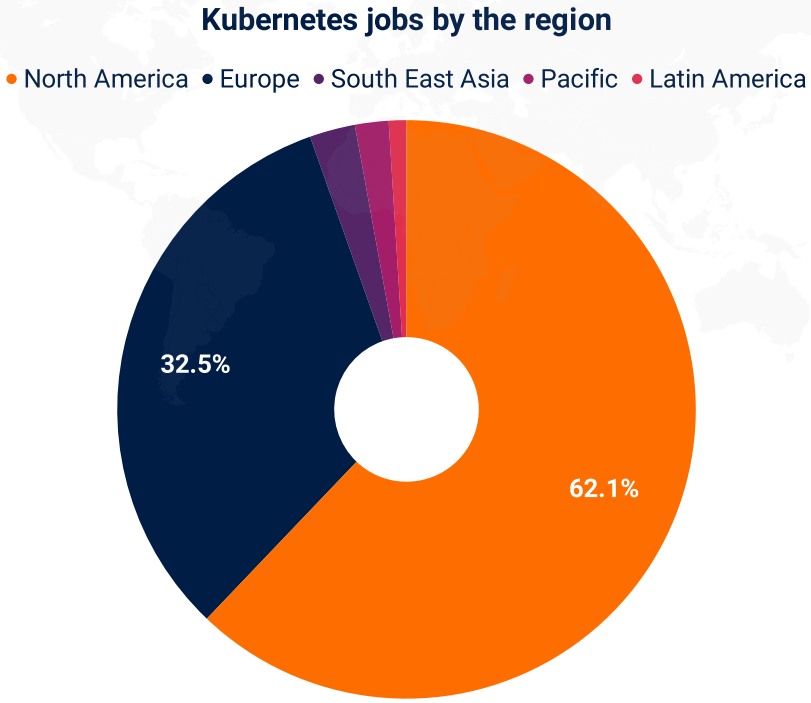


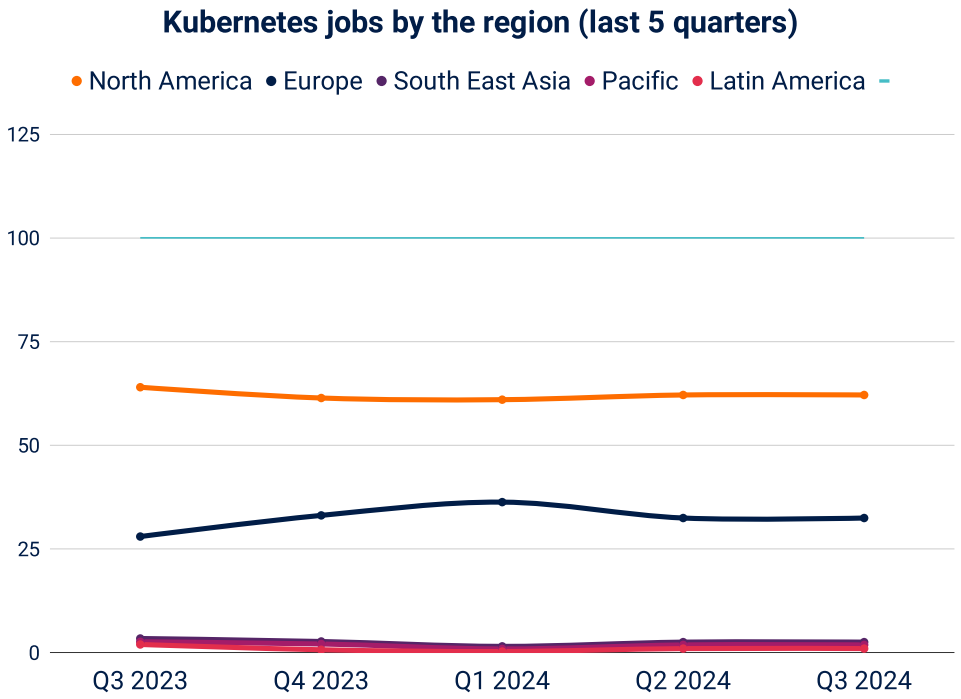
Note that the above numbers average all the recorded salaries with a simple conversion to USD.

To better grasp the job salaries with respect to location, let's get deeper into the details.

Where are most of the Kubernetes job offers located?

In North America. And it isn't even close!





A ***staggering 62.1% of the jobs listed in Q3 2024*** came from the ***North American region!***

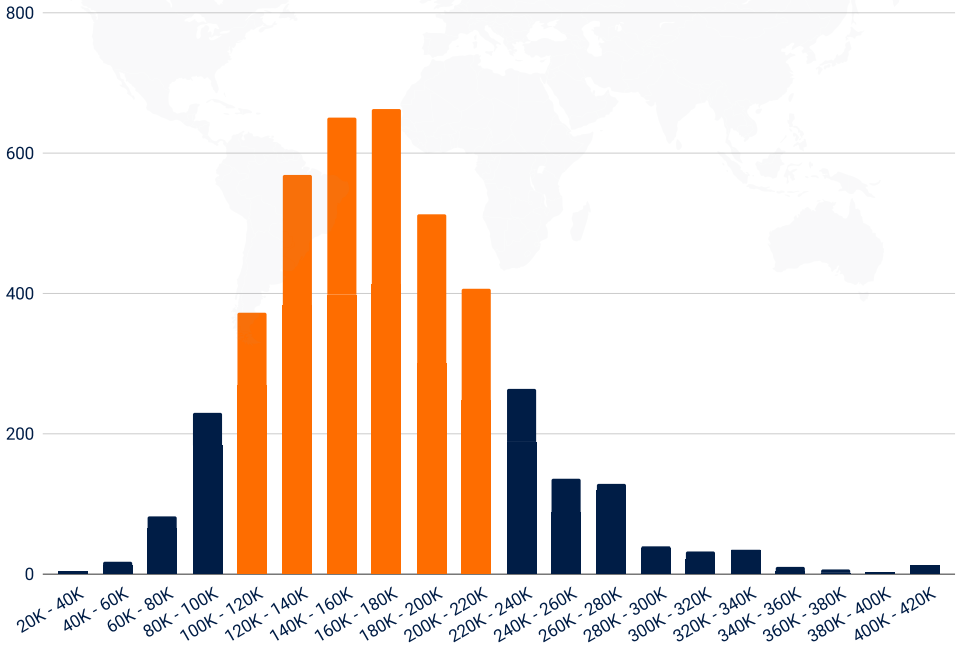
European job offers came in at a distant second, representing 32.5% of the total jobs published.

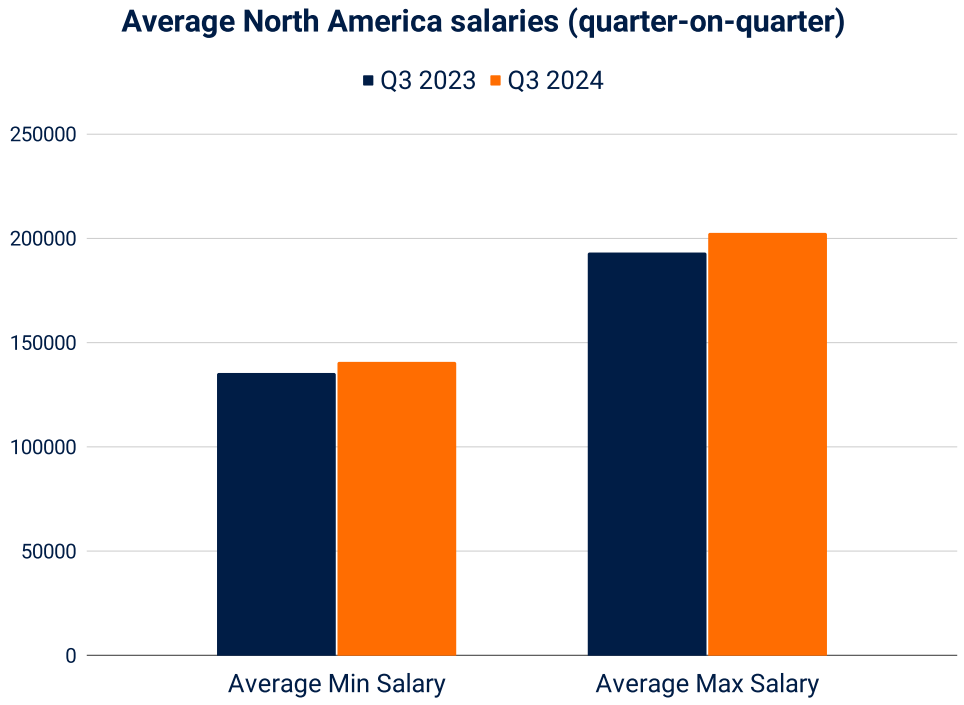
Job offers from Latin America and the Asia-Pacific stood at less than 2% each.

Interestingly, North America has always had the most Kubernetes job offers.

If we take the numbers from the last five quarters, jobs from North America average a whopping **62%** per quarter, while European Kubernetes jobs average at **32%**.

What's the average Kubernetes salary in North America?





For the North American region, the average minimum salary is **$137,738**, and the maximum is **$201,516.**

The average North American Kubernetes job salary is **$169,627.**

The highest recorded salary in North America was a whopping $550,000!** for a director of Engineering role.

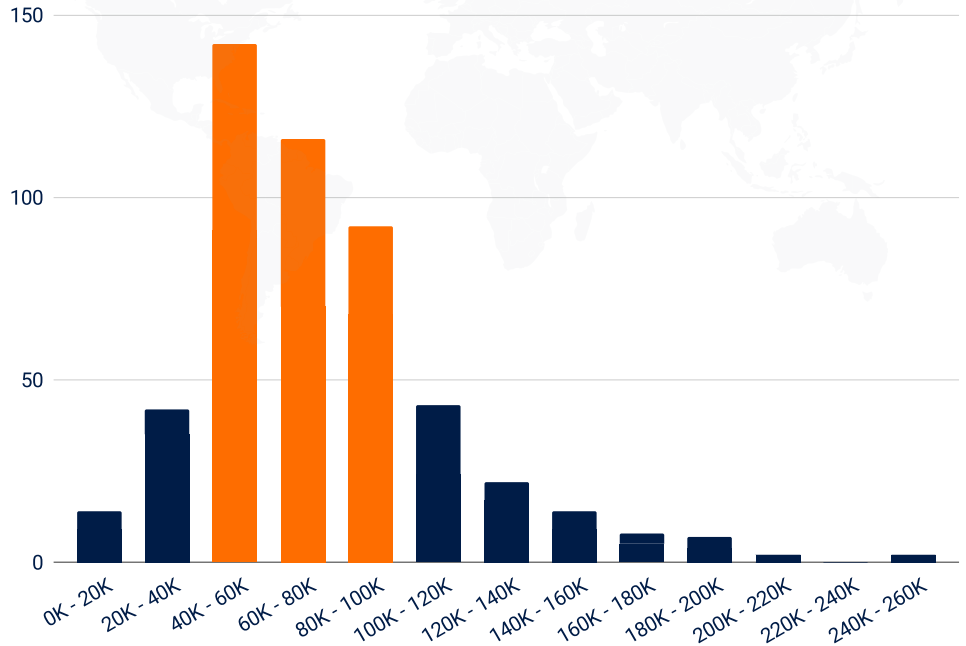
The highest recorded salaries include equity and are usually for C-level positions.

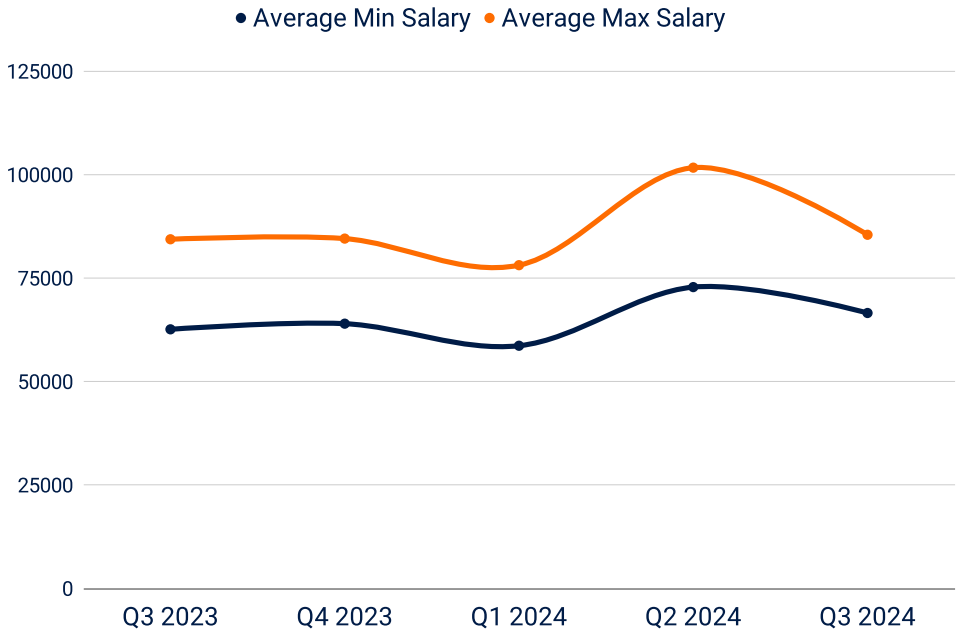
Has North American Kubernetes' job salaries increased since Q3 2023? Let's find out.

We learn that from Q3 2023 to Q3 2024,

- The minimum average salary has **increased by 4%**.
- The maximum average salary has **increased by 5%**, well above the average inflation of 2.62% for the US and 2.4% for Canada during the same quarter.

What is the average Kubernetes salary in Europe?





The *minimum* salary offered in Europe, on *average*, stands at **€66,605**, while the *maximum* is **€85,509**.

The highest recorded salary in Europe was up to **€249,018.**

We have converted all the European salaries to Euros; further deviation needs to be made to obtain better results since **Europe is a vast and diverse continent** with countries with varied economics, cost of living, and technological status.

If we compare the data from the last five quarters, the European salaries appear to be consistent in simplified conversions.

The average European salary in the last 5 quarters comes at a minimum of **€64,968** and a maximum average of **€86,880.8**.

Again, we can't use these numbers as a reference, as these are simple conversions of All European salaries to Euros. As we increase our dataset, we may get granular insights. Look out for the same.

What about Kubernetes salaries in APAC and LATAM?

Our dataset is concentrated on the North American and European regions.

We are slowly integrating other geographies into our database to get a reasonable information variance.

While this is true, here are the highlights from the data we have published from other geographies (all converted to USD):

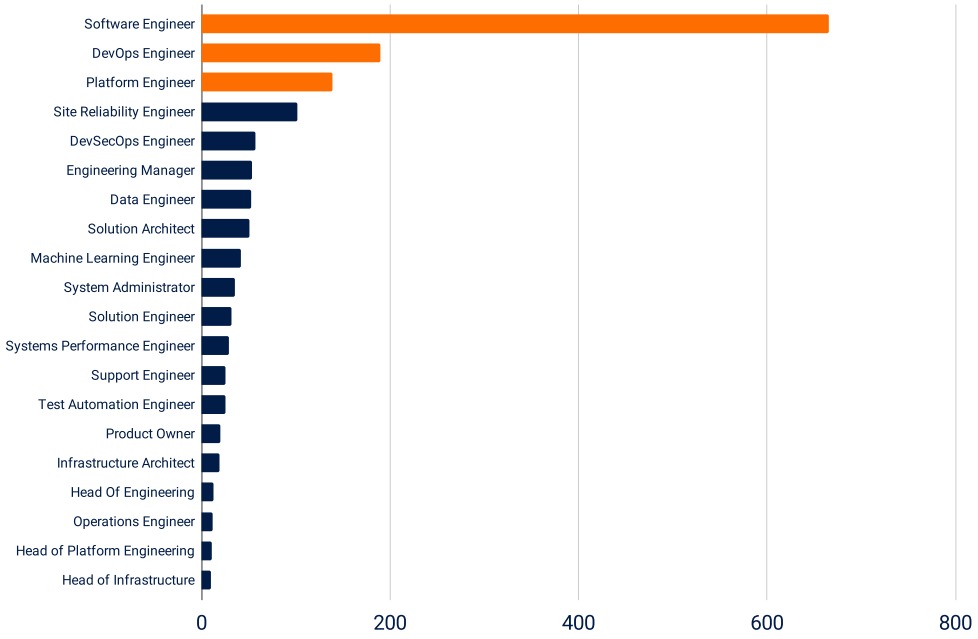
Pacific Kubernetes salaries:	
Minimum salary:	*$132918*
Maximum salary:	*$183209*
Highest salary:	*$183209*

South Asian Kubernetes salaries:	
Minimum salary:	*$66,696*
Maximum salary:	*$81,226*
Highest salary:	*$310,000*

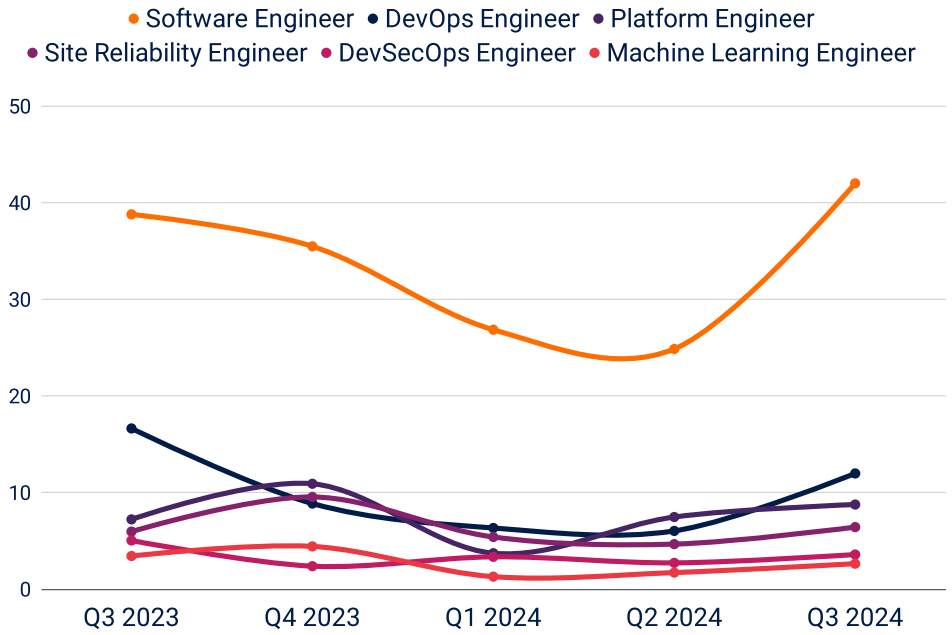
Latin American Kubernetes salaries:
Minimum salary: *$62834*
Maximum salary: *$93131*
Highest salary: *$214000*

The Kubernetes job market seeks software engineers, DevOps and Platform Engineers

Most popular job titles for Q3 2024



Popular job titles (last 5 quarters)



Of all the jobs we published in Q3 2024, ***42% were Software Engineer positions.***

DevOps Engineer, **Platform Engineer** and **Site Reliability Engineer** positions were the next popular roles with **11%**, **8%** and **6%** representation.

These were followed by *DevSecOps Engineer, Engineering Manager, Data Engineer, and Solution Architect* positions, each with less than *3%* representation.

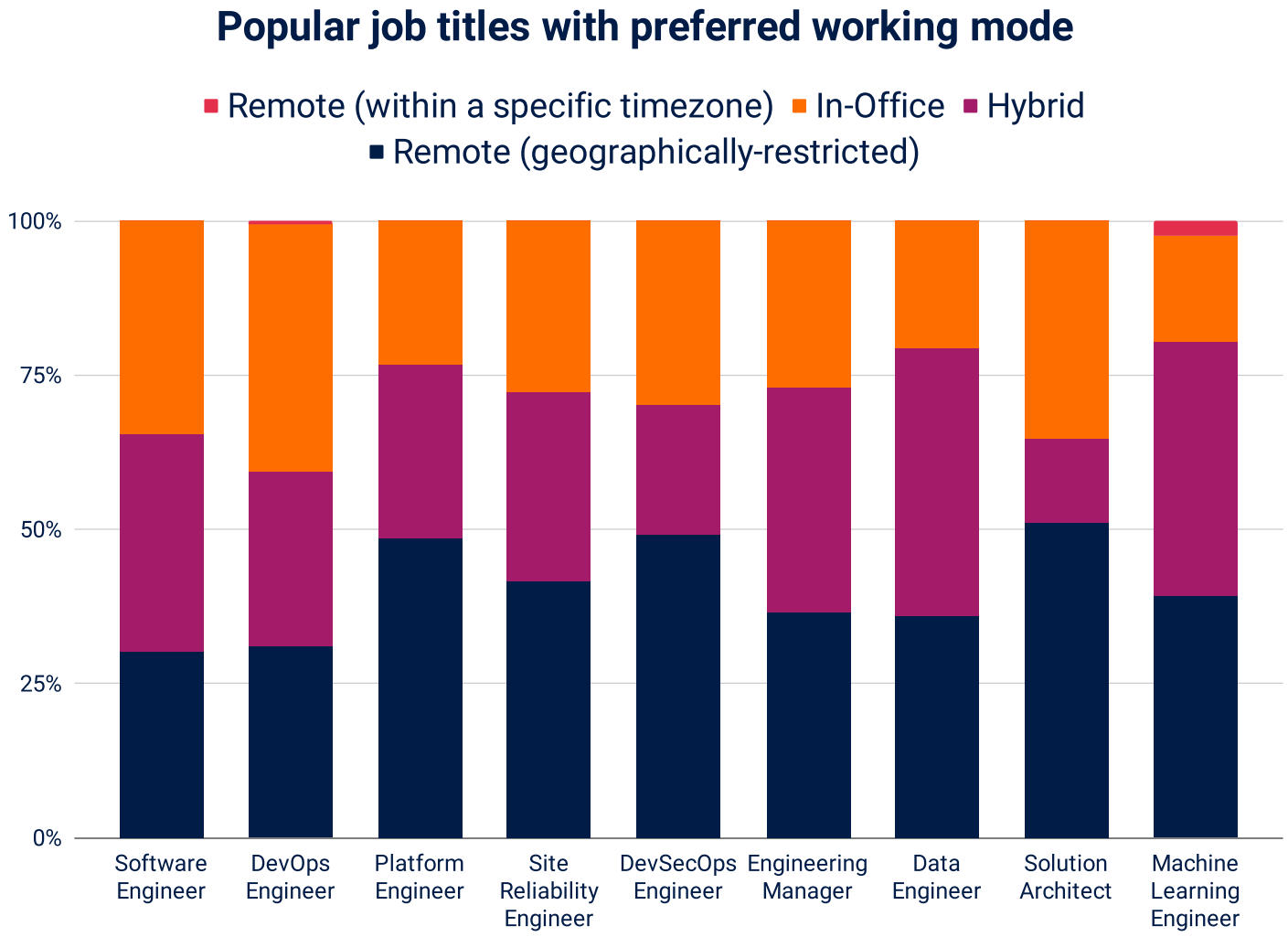
Software Engineer positions were popular in the previous quarters as well.

If we compare the data from the past five quarters, we find that ***Software Engineer positions have always been popular***, with an average representation of ***35% each quarter***.

Interestingly,

- **DevOps, Platform, and Site Reliability Engineer** positions have exchanged the **second, third, and fourth** spots in popularity throughout the quarters.
- *DevSecOps* and *Machine Learning Engineer* positions have been sparse compared to the above positions, with these averaging close to *2%* representation each quarter.

What was the nature of work required for these titles?



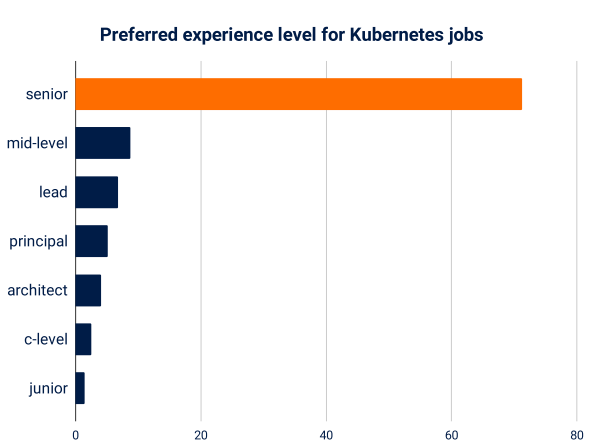
Surprisingly, the most remote-friendly roles are **Solution Architect** and **DevSecOps Engineer**, with **51%**

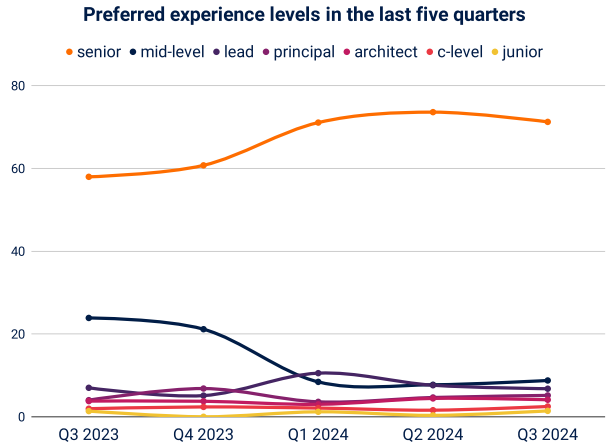
and **48%** of being offered a remote working opportunity.

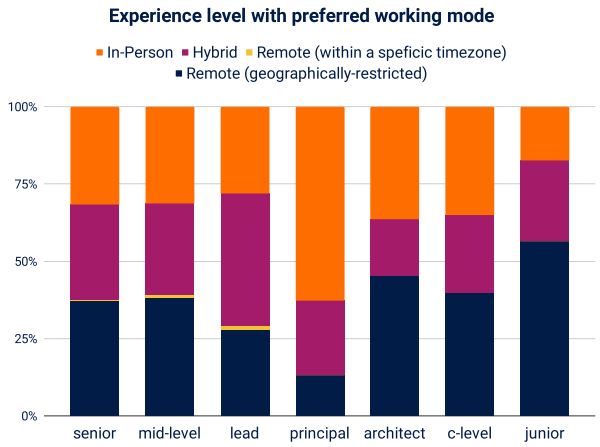
The most Hybrid roles are ***Data Engineer, Machine Learning Engineer, and Engineering Manager.***

The role that requires the most In-Office presence is **System Administrator**

What is the preferred experience level for most Kubernetes jobs?







Senior roles are the preference! Almost ***71%*** of all jobs posted in Q3 2024 listed senior-level experience.

Second in line were Mid-level experience jobs with an 8% representation.

Interestingly, there are **more lead-level jobs (5%) than junior-level jobs (1%)!**

Has Senior-level experience always been preferred?

Senior-level experience has always been sought after for Kubernetes jobs, with an average representation of ***67%*** in the last five quarters!

Mid-level experience is a distant second in popularity, with an average of 13% representation between the quarters.

Lead, Principal, and C-level jobs maintain mid-tier popularity with an average representation of 4%.

Amazingly, C-level jobs have averaged 2% per quarter for the last five quarters, while junior-level jobs average less than 1%!

Junior-level jobs account for less than 1% of the total jobs almost every quarter. We at Kube Careers push for these jobs as much as possible, so if your organization has such openings or you're aware of any, please contact us - we'll ensure these opportunities reach qualified early-career candidates.

If Senior-level experience jobs are the most popular, what is the working mode required for these jobs?

Senior-level roles have an almost equal distribution with the three modes of working: ***Remote (37%), Hybrid (31%), and In-Office (31%)!***

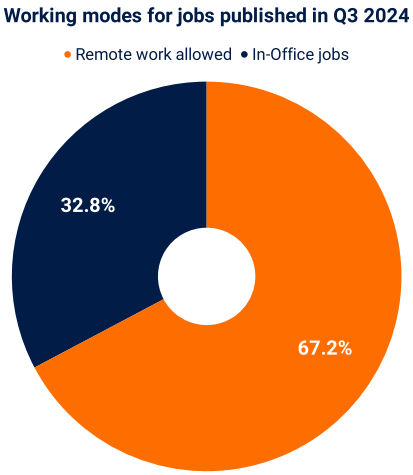
Surprisingly, most Hybrid roles are Lead-level roles, with 62% of these mentioning a Hybrid working mode.

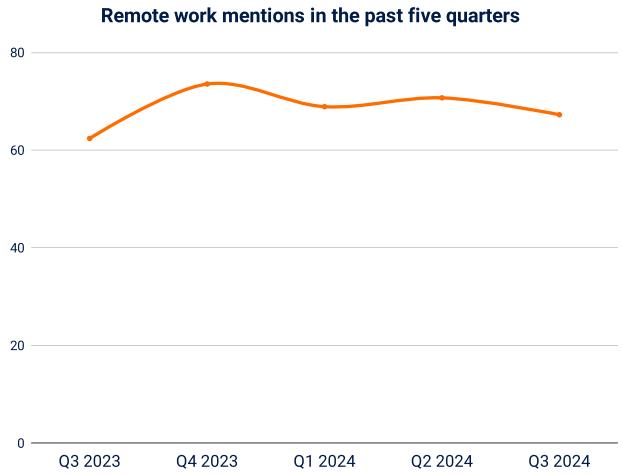
What isn't so surprising is that 62% of all Principal-level jobs require In-Office presence.

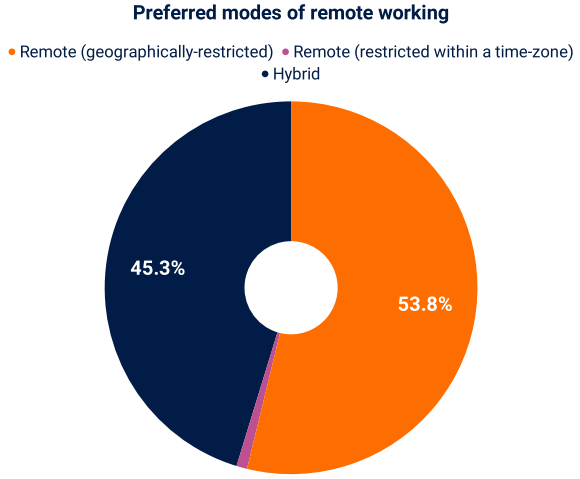
Junior and Architect-level roles are the most remote-friendly, with 56% and 45% mentioning a remote working model, respectively.

7 out of 10 jobs allow remote work of some sort!

Of all the jobs we published in Q1 2024, **68%** of these allow **some sort of remote work.**







Remote work mentions averaged 68% in the past five quarters!

However, remote mentions don't equal fully remote work!

More than half of the jobs that mention remote work require the selected candidate to work remotely, although only within a specified geography (for example, within the United States).

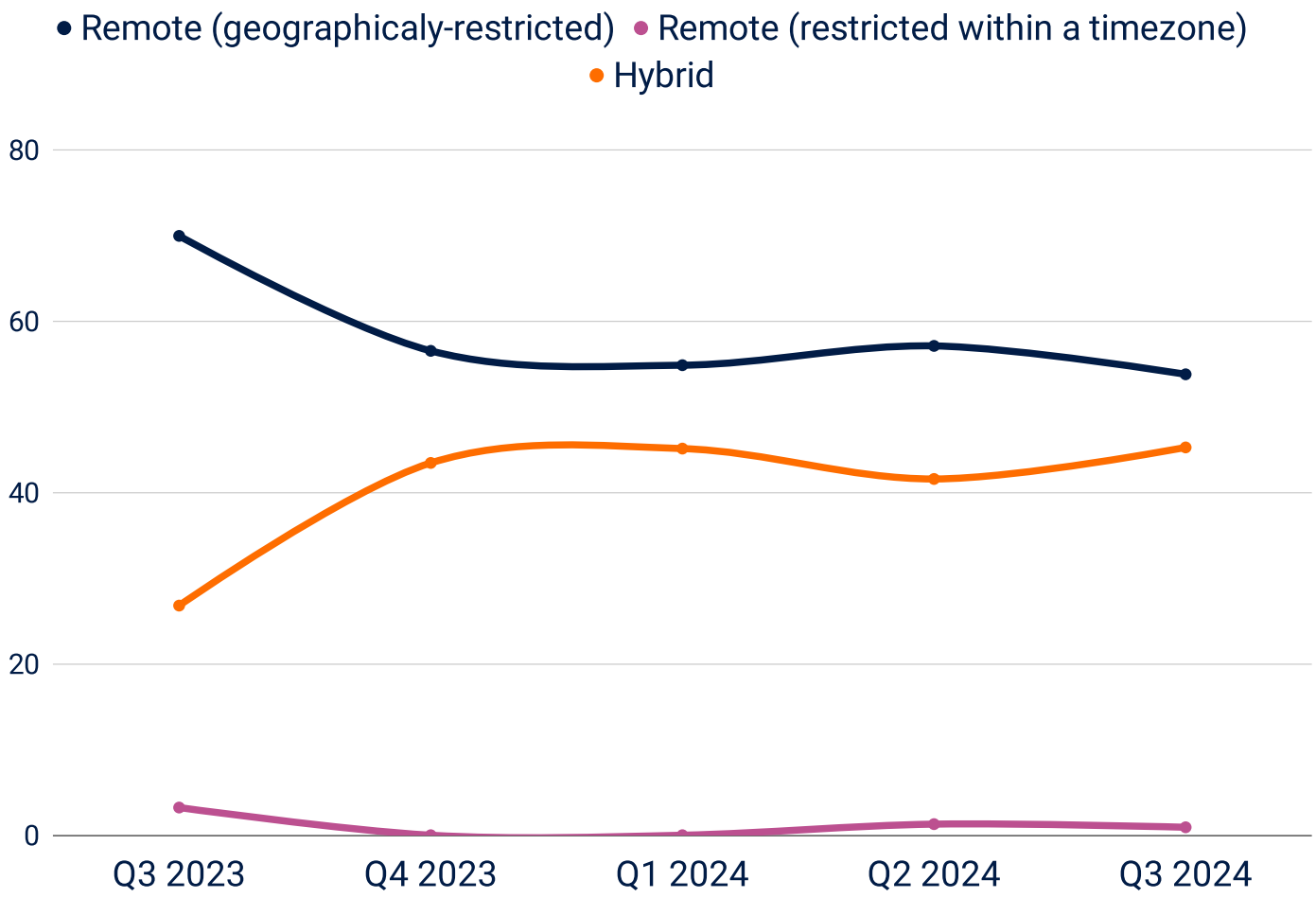
Of all the jobs that mention remote work possibility **54%** of these are **restricted by geographies.**

Most of these require the selected candidate to work remotely within the country.

Hybrid jobs consitute for **45%** of the remote work mentions.

Remote work doesn’t mean you can work from anywhere

Preferred remote working modes over the past five quarters



If we only consider the total remote and hybrid jobs in the last five quarters, we find that ***remote work***

averages 58% and ***hybrid roles average 40%***.

Things may change in the future as the Hybrid working model seems to be the preference for most employers.

How much do remote Kubernetes jobs pay?

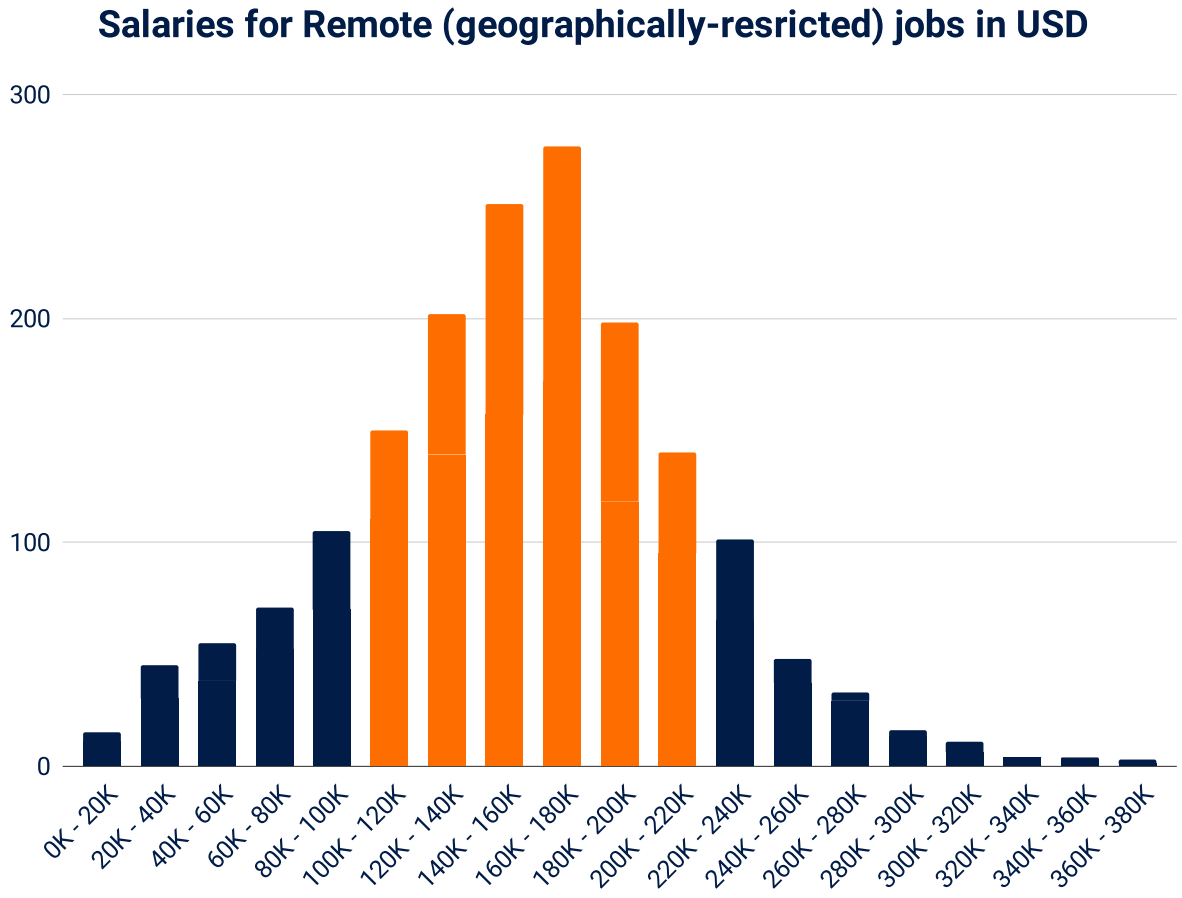
On average, remote jobs pay a minimum of **$129,210** and a maximum of **$179,772.**

But let's dig more into the remote Kubernetes offer by dividing them into three categories:

1. **Remote from a country**: jobs require employees to work remotely within a specific geography. For example, remote work is only for US citizens within the United States of America.
2. **Remote in specific business hours**: jobs require employees to work only within a particular timezone, e.g. +3 GMT to -4 GMT.
3. **Hybrid roles** allow you to alternate between working from home and the office. Usually, these jobs specify a minimum frequency of office visits. For example, the employee should report to the San Francisco office twice a week at the latest.

What is the average salary for remote roles restricted to a specific country?

The average minimum salary for remote roles that are restricted to a specific country is **$130,275**, and the maximum average is **$181,470.** While the highest salary range for these jobs is **up to $500,000!**



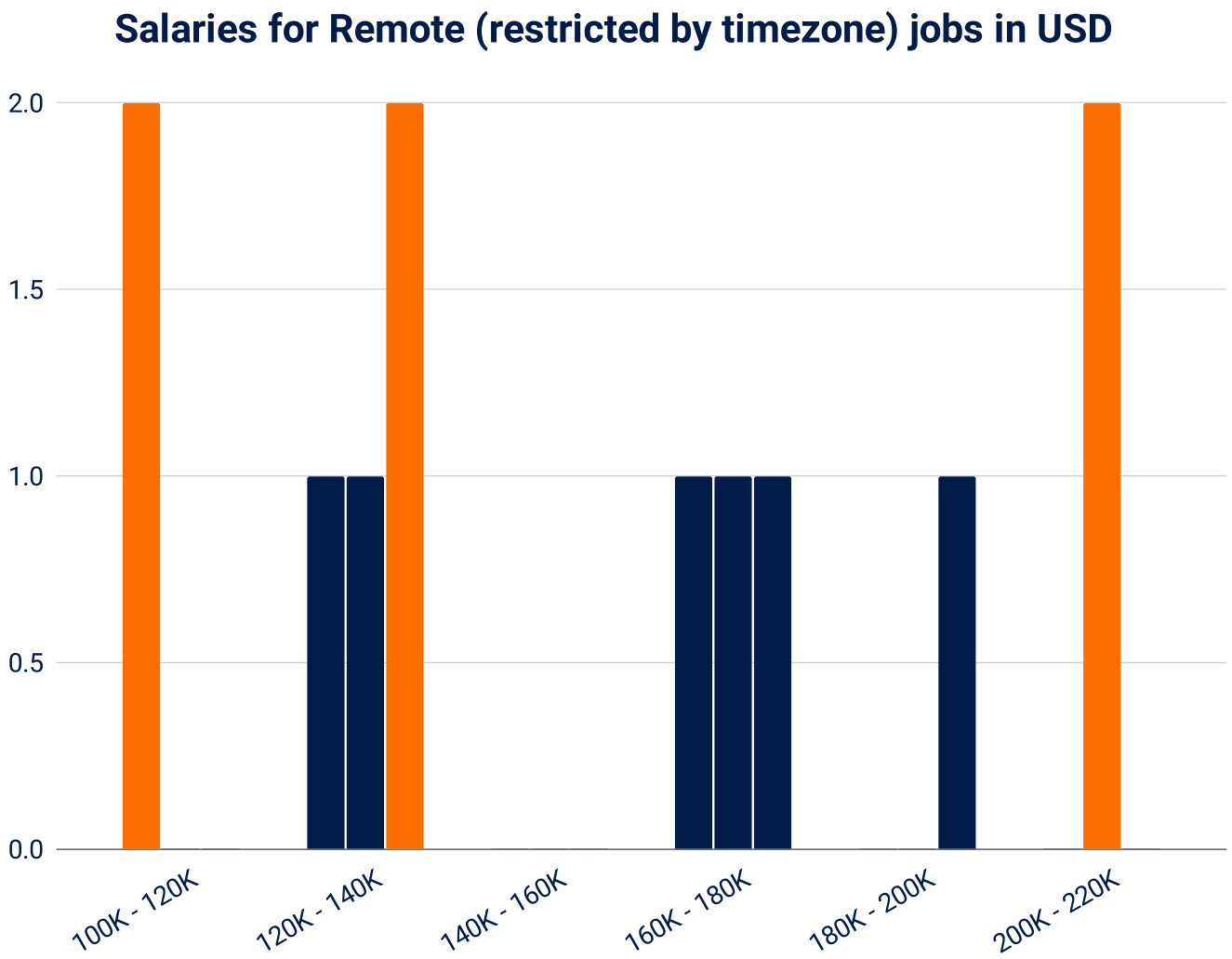
The salaries aren't that different. Below is the comparison of the average wages in the last four quarters.

![19_salaries_geographicallyrestricted_lastfourquarters]

((assets19_salaries_geographicallyrestricted_lastfourquarters.svg)

If we compare Q3 2024 with the previous quarters, we understand that there has been a deviation of **2-3%**, which is negligible.

What about remote jobs that require working within specific business hours?



The average salaries for remote roles during specific business hours are between ***$128,526*** and ***$179,238.***

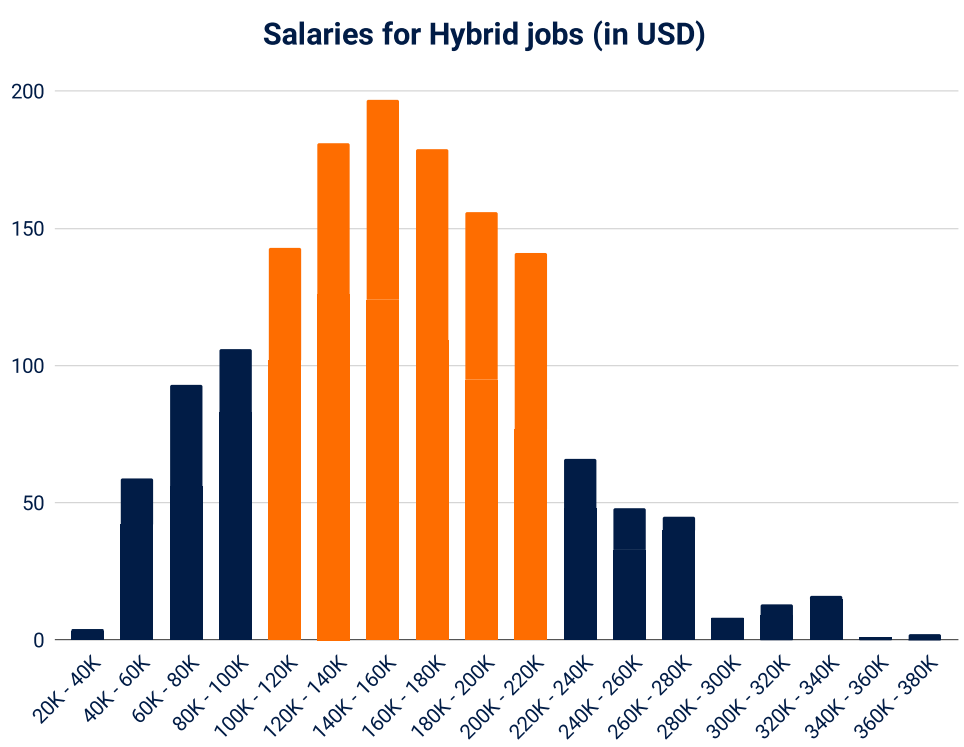
The *highest* recorded salary for these kinds of remote jobs is **$214,000.**

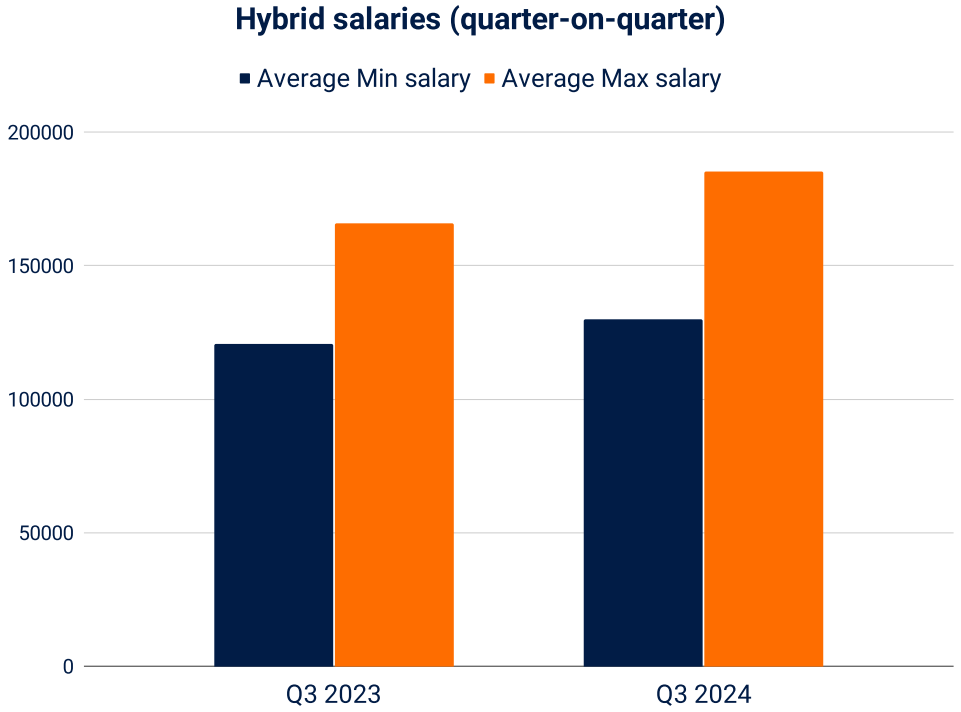
Do take these numbers with a grain of salt!

Less than 0.5% of the total remote jobs we published in Q3 2024 **were restricted by specific timezones.** Thus, the dataset is too small to be conclusive!

What are the average salaries for hybrid roles (office + home)?

On average, the **minimum salary** for hybrid roles (office + home) is **$130,098** while the **maximum salary** is **$185,224.**



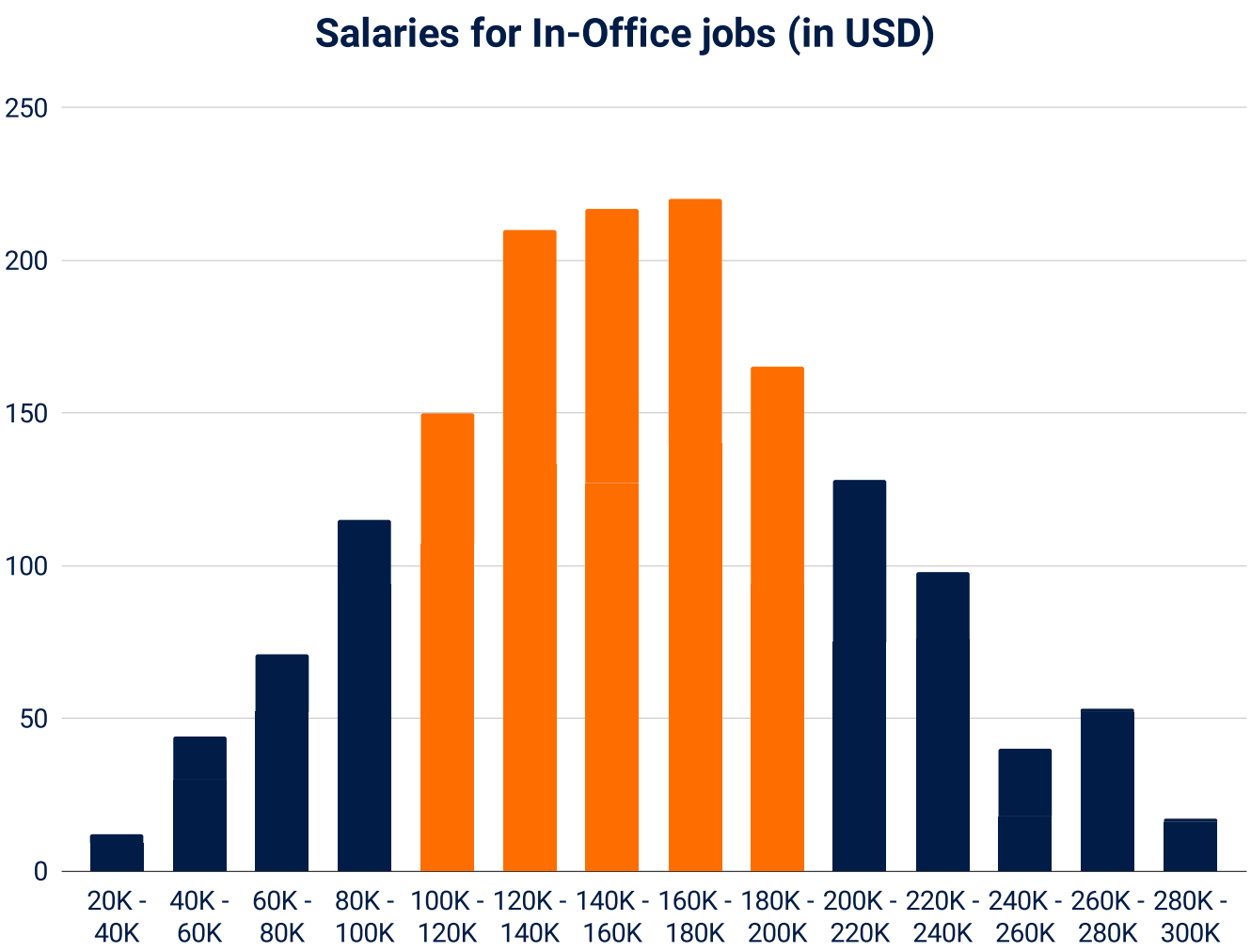


The highest salary was a whopping **$550,000!** for an **Engineering Manager** role.

The numbers have increased over the years. Here is the comparison between Q3 2023 to Q3 2024

Interestingly, the average **minimum salary increased by 7%**, and the average **maximum wage increased by 11%** between Q3 2023 and Q3 2024.

If these are remote job salaries, what about regular jobs in the office?



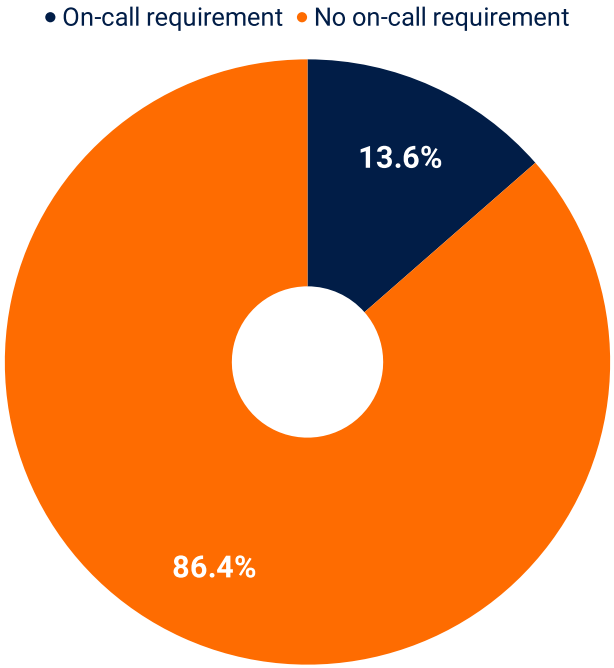
On average, salaries for jobs that require an in-office presence are between **$126,738** and **$195,590.**

The highest salary range was **$465,000** for a **Head of Engineering** role.

If we average all the above salaries, we find that ***In-office jobs pay 4% more than remote jobs***. This makes sense traditionally as companies prefer head/c-suite positions to work from the office more.

Kubernetes jobs with on-call rota

On-call requirement for Kubernetes jobs

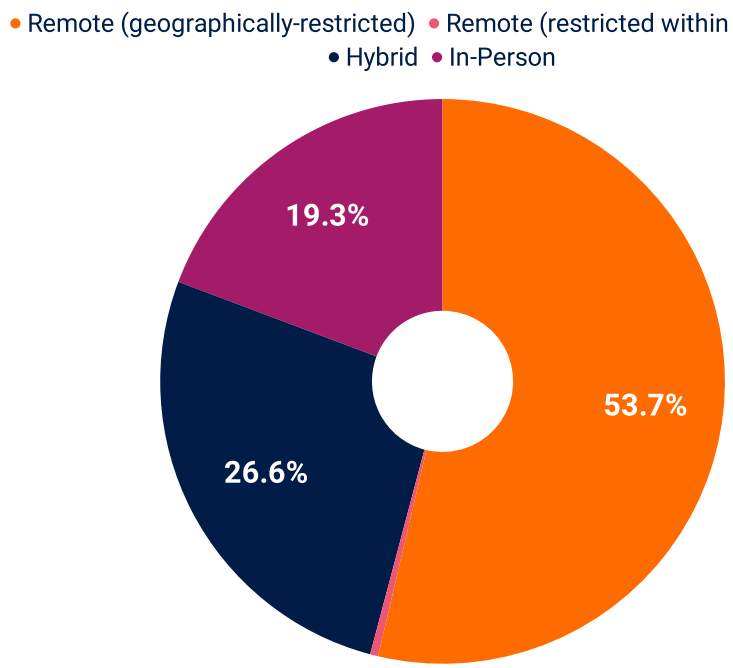


Not all job descriptions explicitly mention the requirement for the employee to be on call (they should, ideally).

Thus, even though **only 13%** of the jobs in Q1 2024 explicitly mention the need for on-call rotation, we **can't exclude that the number is higher.**

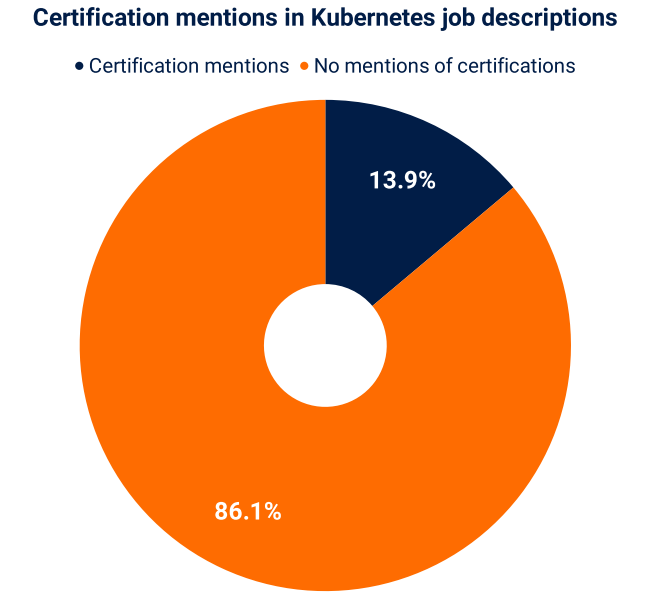
The most on-call mentions were for remote and hybrid jobs.

On-call requirement with respect to working mode

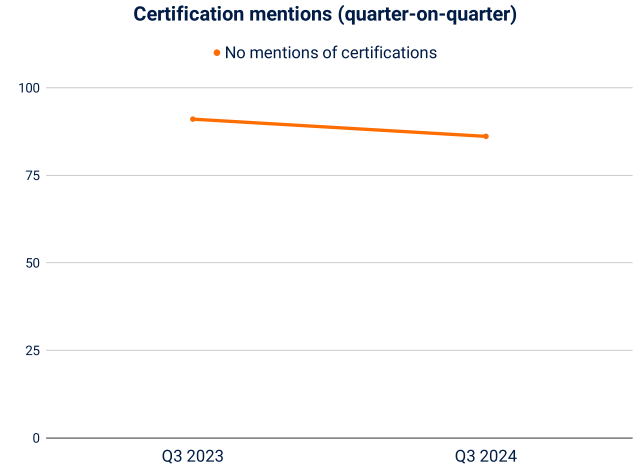


Of all the jobs that mentioned an on-call requirement, **53%** were remote jobs, **26%** were hybrid jobs, and **19%** were jobs from the office.

How vital are certifications for a Kubernetes job?



Only 13% of the jobs we published in Q3 2024 mentioned a need for a certification.

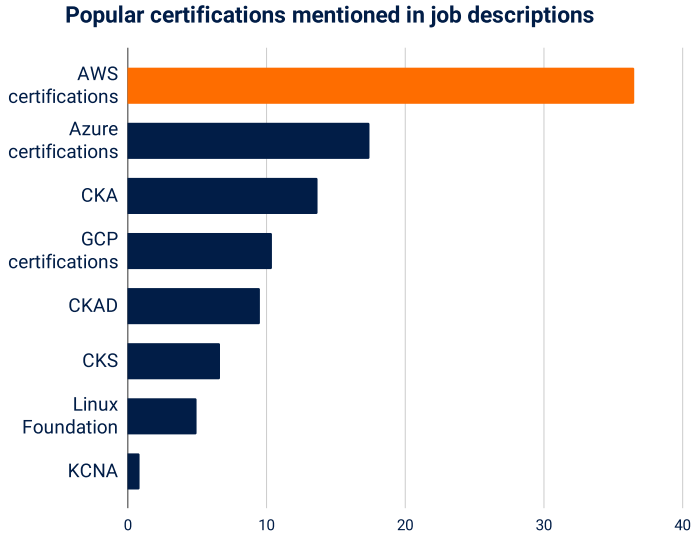


Since Q3 2023, the mentions have increased from 9% to 13%, but there is more to it.

While the data and the patterns suggest that certifications are not a requirement, there are better ways to look at this.

You will always stand out if you have completed a certification and an important one at that.

Which are the popular certifications when it comes to Kubernetes jobs? Let's find out.



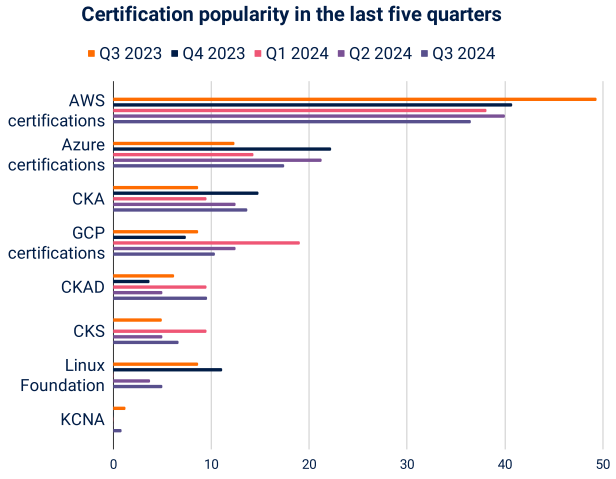
There were multiple instances wherein more than one certification was mentioned.

Of all the job descriptions that mentioned specific certifications **36%** of these mentioned the **AWS certifications.**

These were followed by **Azure** and **CKA** certifications with **17%** and **13%** representation.

Next in line are ***GCP, CKAD, and CKS*** with ***10%, 9%, and 6%*** representation.

If we compare the numbers from the past five quarters, it's no surprise that AWS certifications are most in demand!

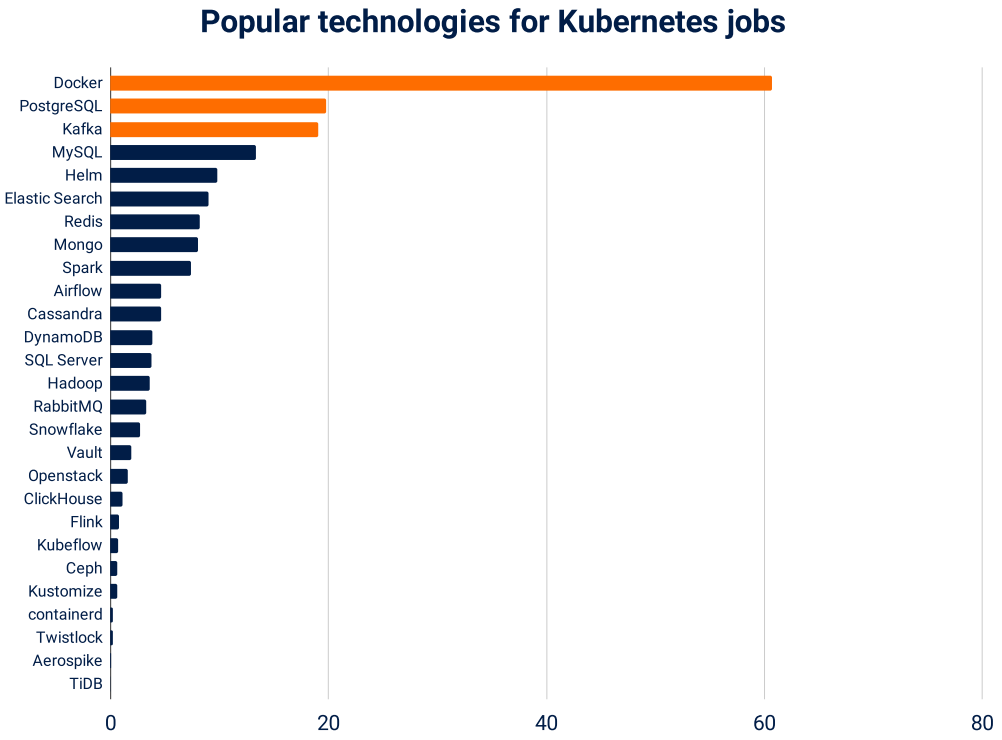


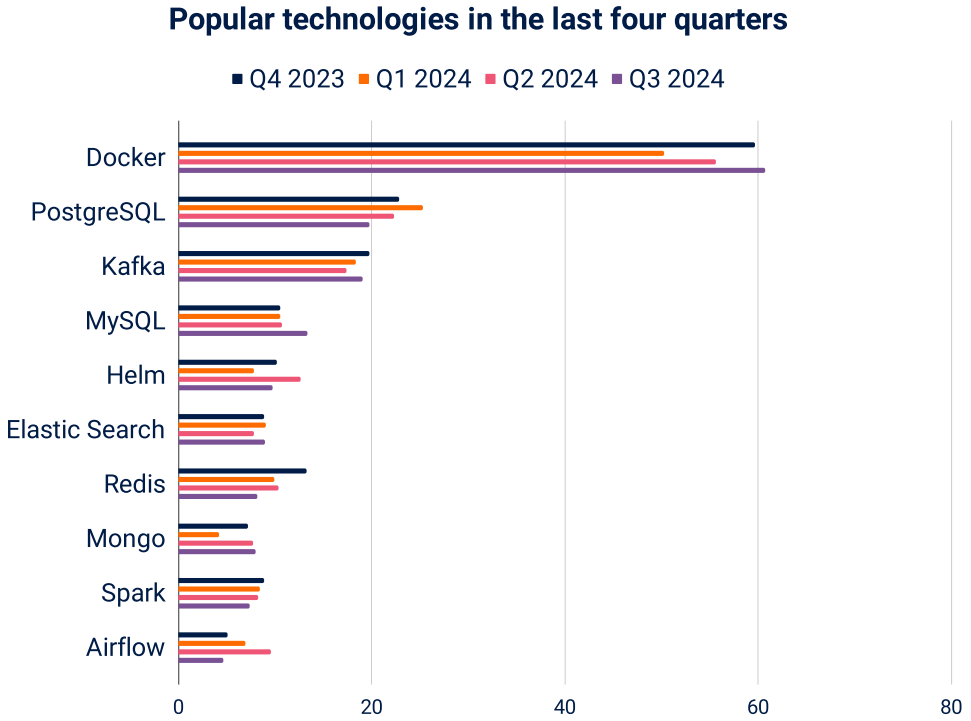
In the last five quarters, AWS certification has been mentioned almost 40% of the time, on average, for each quarter!

GCP, **CKA** and **Azure** certifications have traded places for the second spot in popularity through the past year.

CKS is consistently the least popular of the Kubernetes certifications across the year.

Popular technologies for Kubernetes jobs





Docker is the most popular technology for Kubernetes jobs, with more than 60% of the jobs mentioning it.

Distant from the first yet closer together are **PostgreSQL** and **Kafka**, with **19%** representation each.

MySQL and Helm complete the top 5 popular technologies, with 13% and 9% of the jobs mentioning them, respectively.

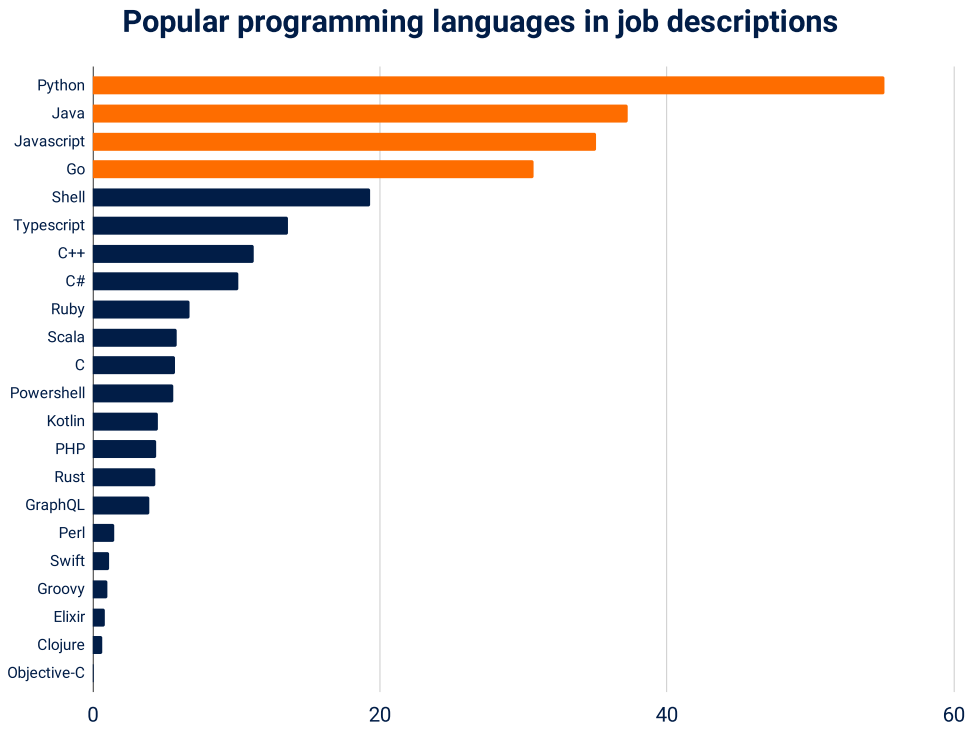
Which were the popular technologies in the previous quarters?

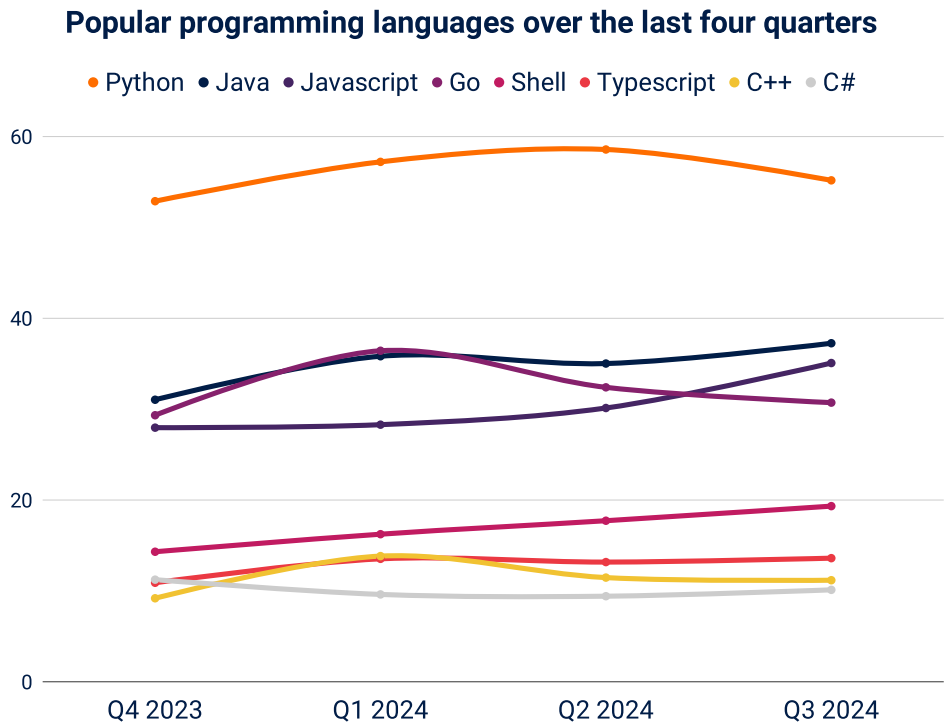
Docker is the most popular technology mentioned in job descriptions, averaging 56% representation across the past three quarters.

PostgreSQL and **Kafka** are close in second and third place, with averages of 22% and 18% across the quarters, respectively.

Completing the top five most popular technologies are **MySQL** and **Helm**, which average **11%** and **10%**.

Which programming languages are in demand the most for Kubernetes jobs?





Every time a programming language was mentioned in Q3 2024, there was a ***55% chance it was Python.***

The next popular languages were **Java (37%)**, **Javascript (35%)**, and **Go (30%).**

Other languages completing the top ten list are Shell 19%, Typescript 13%, C++ 11%, C# 10%, Ruby 6%, and Scala 5%.

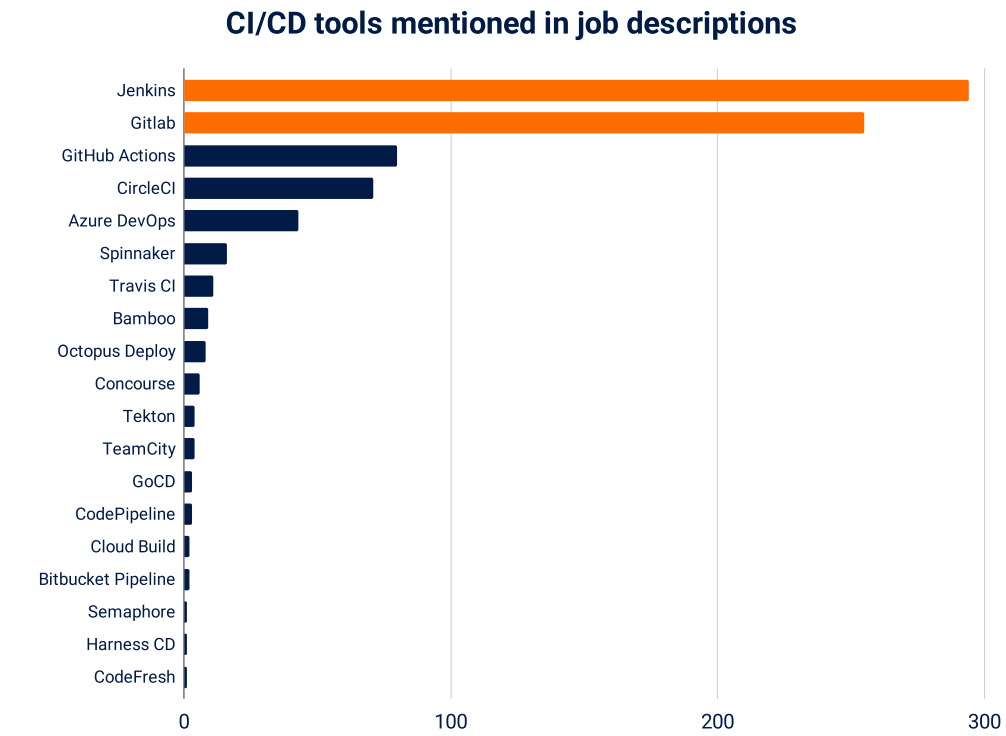
Looking at the past four quarters, it is evident that ***Python is the most in-demand programming language for Kubernetes jobs***, with an average of ***56%*** jobs mentioning it each quarter.

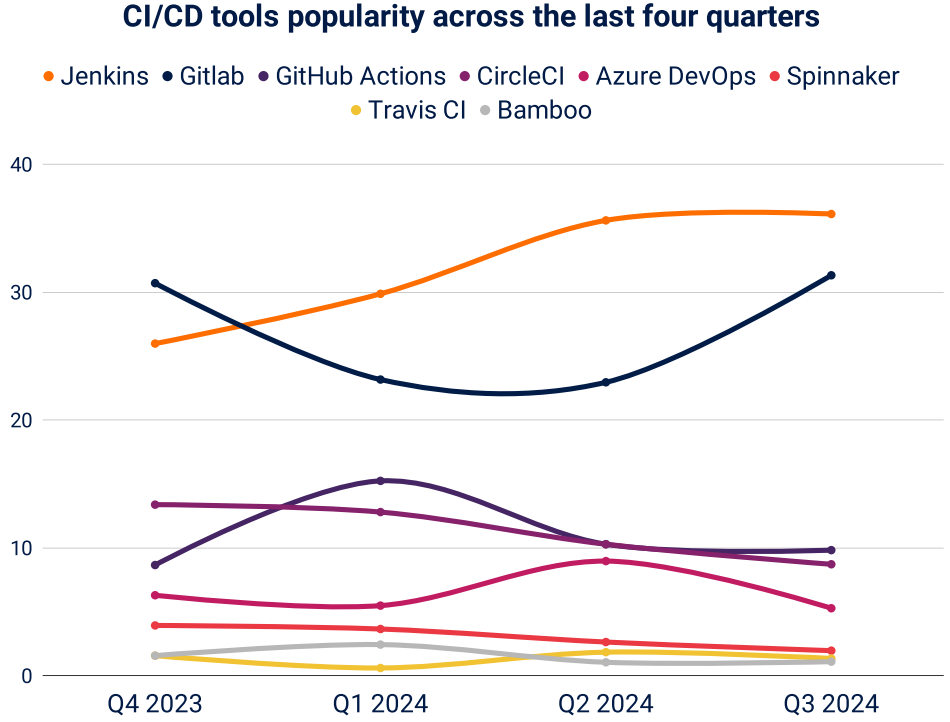
There appears to be a second tier of programming languages, in which **Java**, **Javascript**, and **Go** exchange the second, third, and fourth spot through the quarters.

The third tier of programming languages consists of **Shell, TypeScript, and C++**, each almost trading places with the others over time.

What CI/CD tools are popular in Kubernetes job descriptions?

Of the jobs that cited CI/CD experience, **46%** were generic mentions with no tool specification.





Of the total specific tags for CI/CD tools, Jenkins was the most popular, with 36% of the total tags.

A close second was **Gitlab** with **31%**, and **Github Actions** was a distant third with **9%** representation.

CircleCI followed these at 8%, Azure DevOps at 5%, and Spinnaker at 1%.

Has Jenkins always been the most popular CI/CD tool?

Barring *Q4 2023,* wherein *Gitlab* took the top spot, **Jenkins** is the **most popular CI/CD tool** mentioned in job descriptions with average mentions of 31% per quarter, while **Gitlab** has been consistent in the **second spot** averaging at 27% mentions each quarter.

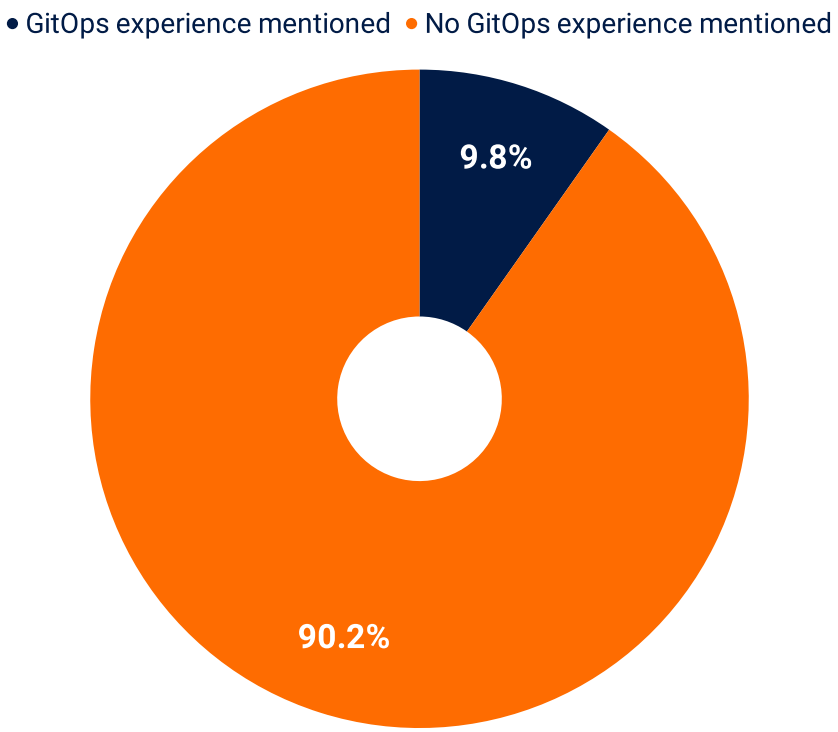
Although starting much lower in Q4 2023, **Gitlab Actions** has been consistent in the third post, maintaining it through the remaining quarters, while **CircleCI** has slipped ever so slightly to the fourth spot.

Spinnaker, Travis CI, and Bamboo are in the bottom tier, with an average of less than 2% mentions each quarter.

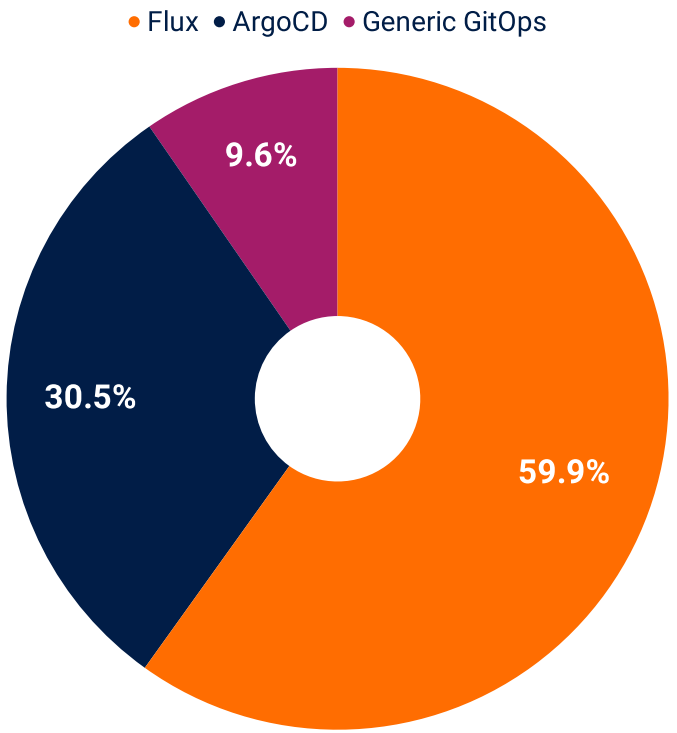
Is GitOps popular in Kubernetes jobs?

The data suggests **GitOps adoption** is getting traction, but not as much as you think.

GitOps experience as a requirement



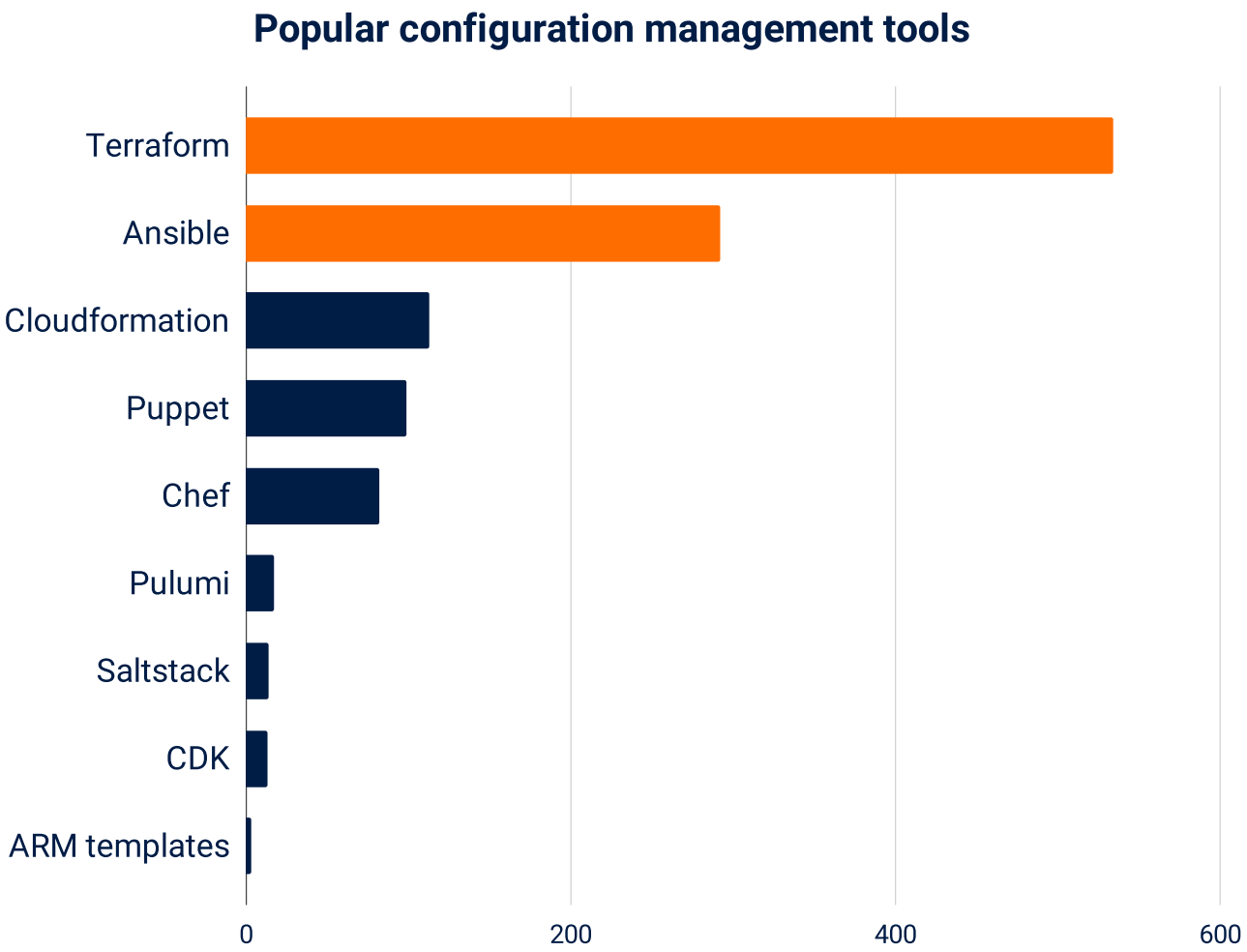
GitOps tools popularity



Only 9% of the total jobs we published in Q3 2024 mentioned the need for **GitOps experience.**

Of the total specific GitOps tools tags, **67%** of these were for **Flux**, **21%** were **ArgoCD**, and **11%** were for **Generic GitOps.**

What configuration management tools are popular?

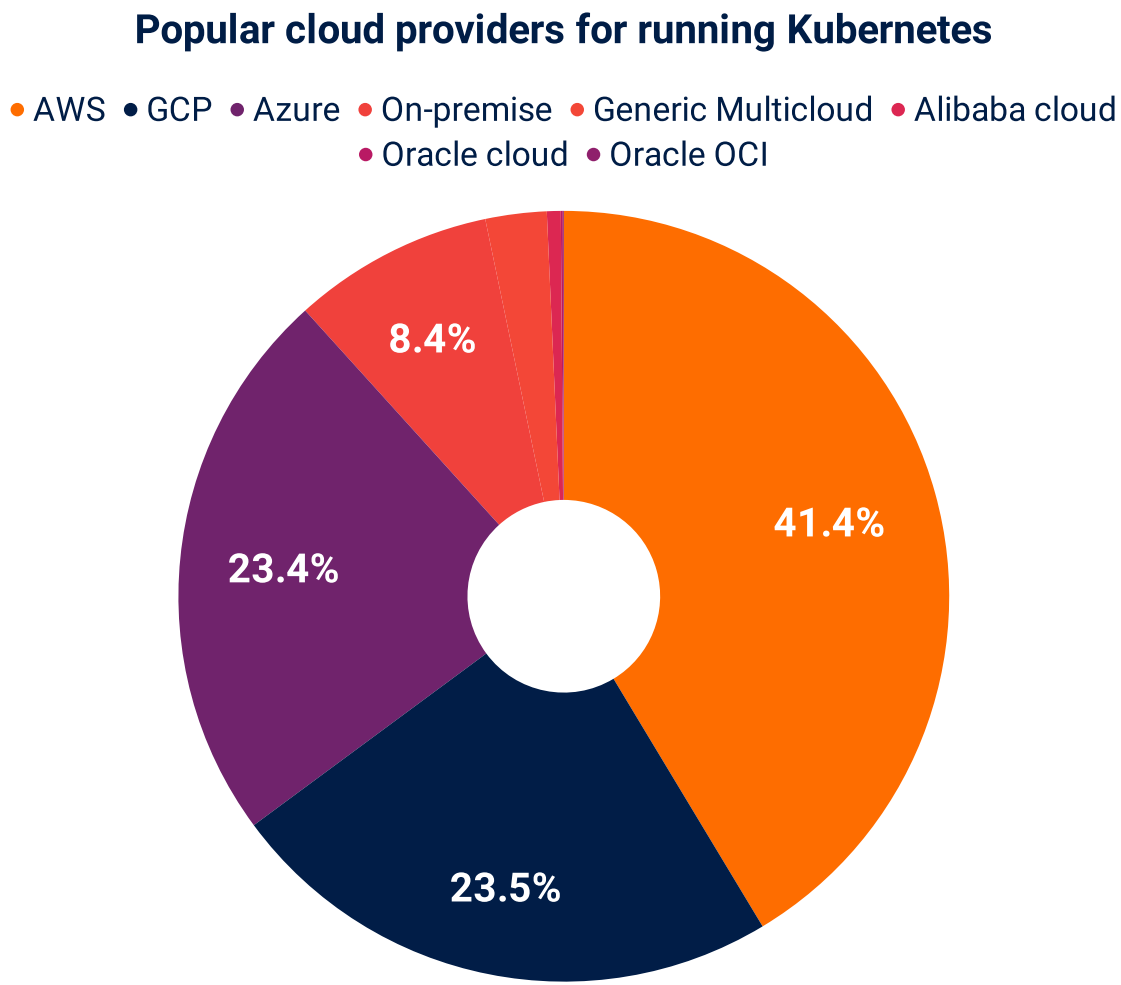


Of the total specific tags for configuration management tools **45%** of these were for **Terraform.**

Ansible and **Cloudformation** came in second and third with **25%** and **9%** popularity.

Puppet and *Chef* completed the top 5 with *8%* and *7%* representation.

Popular cloud providers for running Kubernetes



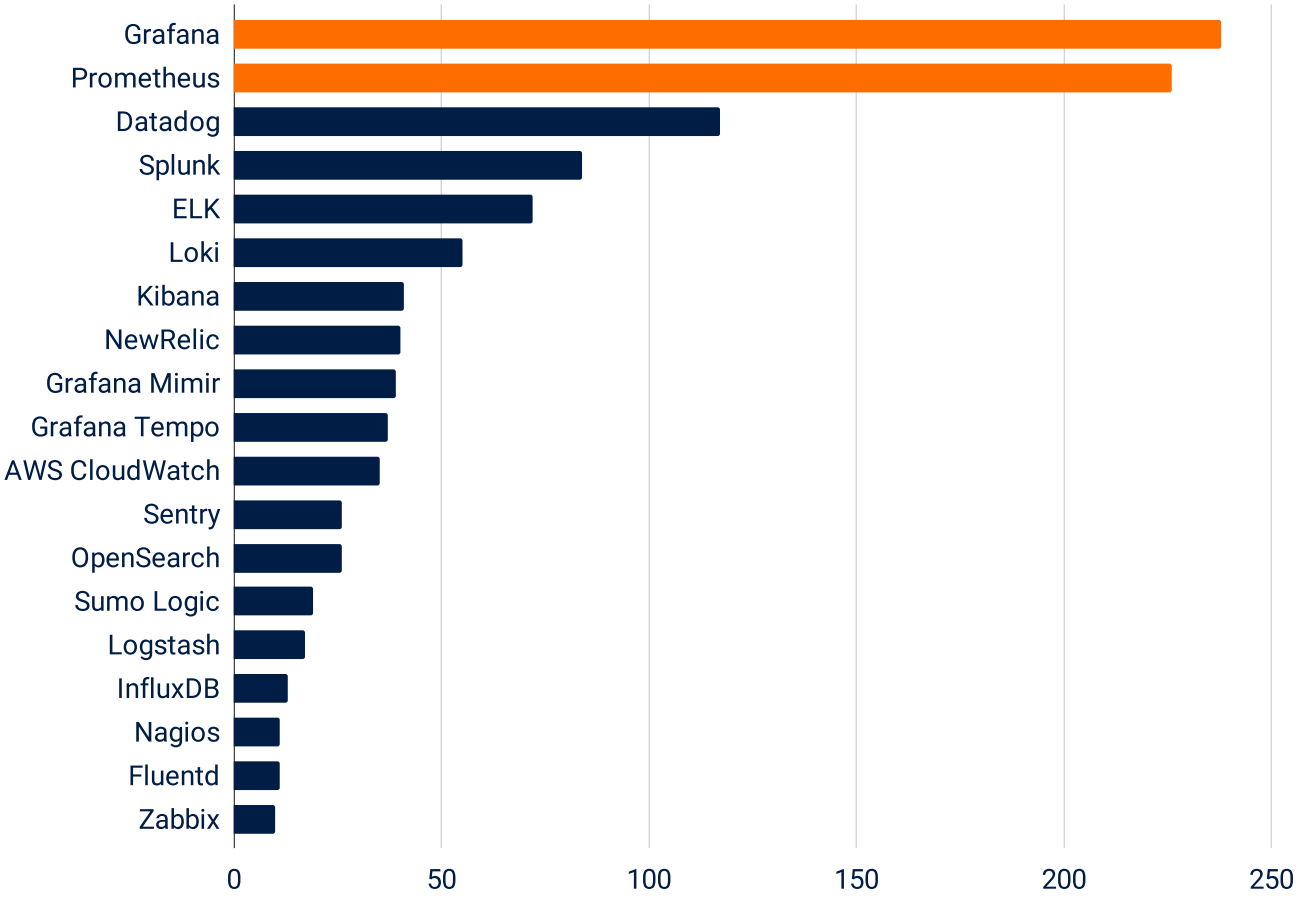
Most job descriptions did mention more than one cloud provider.

Almost all jobs that mentioned their infrastructure location mentioned more than one host and nearly ***41% mentioned AWS as their preference.***

At a distance but still fighting for second place were **GCP** and **Azure** with **23%** representation each.

Observability adoption in Kubernetes

Popular observability tools mentioned in job descriptions



Grafana was the most popular tool with **20%** of the total mentions.

A close second and third were **Prometheus** and **Datadog** with **19%** and **10%** representation.

Other notable tools are *Splunk 7%, ELK 6%, and Loki 4%.*

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