MOTION
RECRUITMENT

2024

Tech Salary Guide

For Employers and Candidates

United States ///

The State of
Tech Employment

2024 is an opportunity for tech workers and companies to grow and evolve in exciting ways as technology continues to advance and change at a rapid pace.

Despite 2023's ups and downs, we see the strength and resiliency of the IT community, which continues to optimize the way work is done amid digital transformation, workplace changes and technological growth in areas like artificial intelligence. Unsurprisingly, overall tech unemployment rates remain far lower than other sectors, and the talent gap remains high.

To continue this path to growth, it is crucial to have an innate understanding of the IT job market and the value different positions provide. Having that knowledge is vital to your success in 2024, and we hope this report and our specialized tech teams can help make it as smooth as possible to navigate.

Matt Milano
President,
Motion Recruitment

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The State of
Tech Employment

Tech Employment Trends

At the start of 2023, the tech world was preparing itself for the worst. Fears of hyperinflation, smaller profits, uncertainty about the future and more had tech leaders predicting a full recession inside the IT economy, with mass layoffs and company closures among a sea change inside the industry.

At the end of 2022 heading into the first quarter of 2023, some of this came to fruition. Seemingly every day there was a new headline about layoffs in different companies across North America. In fact, the start of 2023 saw the biggest wave of layoffs in the past decade, with 150% more layoffs in the first half of 2023 versus the year prior.

Tech Layoffs in 2022-2023

Source: layoffs.fyi, 2023
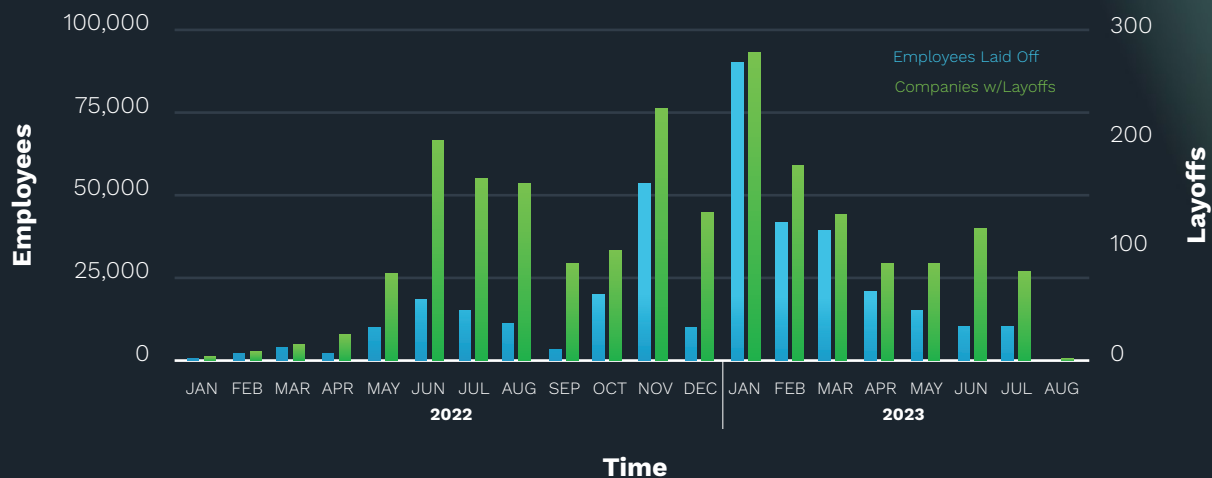
However, when looking deeper into the numbers, it shows that the IT economy was far more resilient throughout the year than what was predicted, with tech unemployment rates still far below the national rate, reaching below 2% in the summer and bumping slightly up in the fall to 2.1%,

Even with these seemingly catastrophic numbers, **layoffs only rolled the tech industry back by 8%** of the post-pandemic growth.
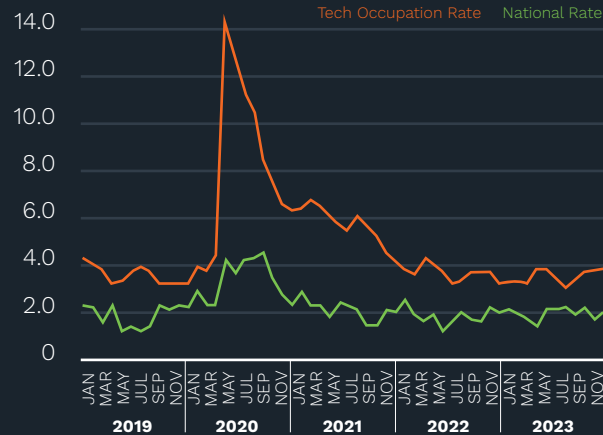
Tech Industry Employment

Source: U.S. Bureau of Labor Statistics
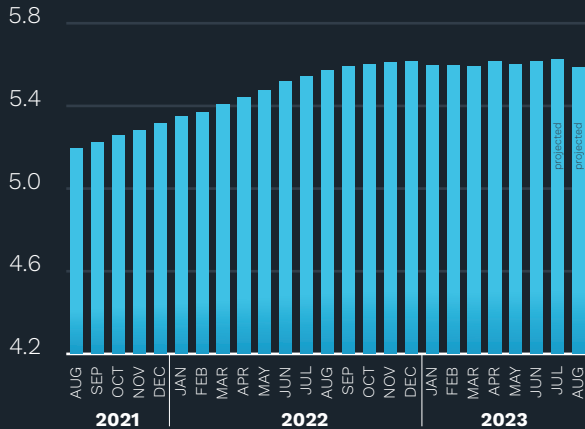

Unemployment Rate Trending

Source: U.S. Bureau of Labor Statistics

Tech Occupation Rate   National Rate

There continues to be a tech talent shortage across the United States, with nearly 4 million tech jobs available, and projections show that the United States tech industry is projected to grow 5.4% in 2023. That being said, because of the unease in the market, overall tech salaries saw a very modest increase this year of 2% on average, versus the nearly exponential growth trends over the past decade.

Tech Layoff Analysis 2020-2023

Source: Tech Layoff Analysis, 2020-2023 by skills.ai
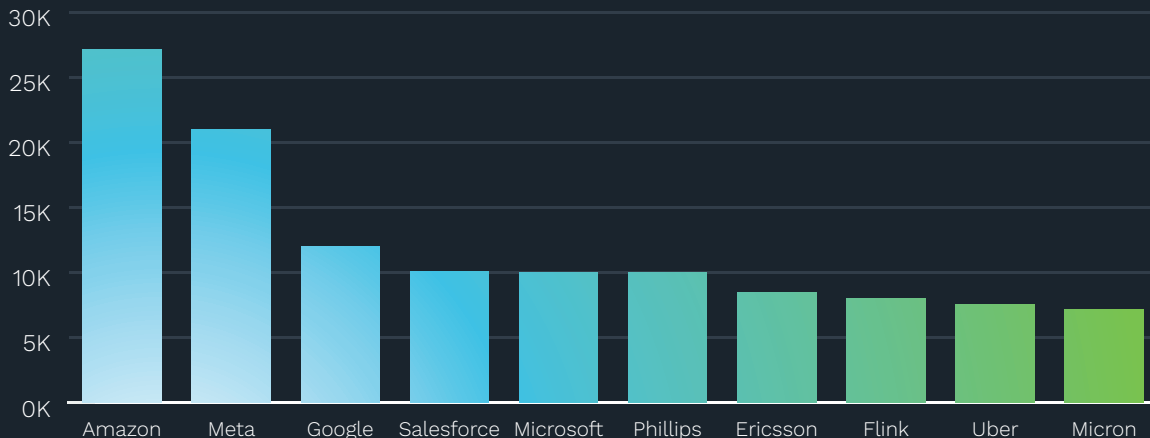
An important part of the story of 2023 – and what we can learn from it in 2024 – is who was part of the tech layoffs, both company and personnel-wise. Accounting for 42% of all tech layoffs this year, FAANG companies (Meta, Apple, Amazon, Netflix, Alphabet) were the biggest sources of job loss. This must be put into context, as these companies, along with Microsoft, have been on a steady hiring spree since 2019. Compared to the number of people hired by these companies since 2019, the lay-offs of 2023 only account for 8% of that workforce.

Tech Company Headcount 2019-2023

Source: 2023 Layoffs At Big Tech Companies by Crunchbase News

Amazon
Meta
Alphabet
Microsoft
Salesforce

Headcount Increase (2019-2022)   Headcount Decrease (2022-2023)
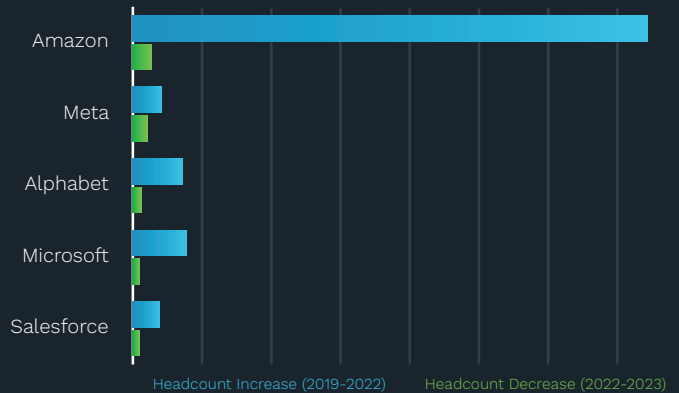
Large Tech Companies Employees 2019 -2022

Source: 2023 Layoffs At Big Tech Companies by Crunchbase News

250K
200K
150K
100K
50K
0K

2019   2020   2021   2022

Microsoft
Alphabet
Meta
Salesforce

Additionally, while tech companies were clearly letting people go in 2023, it was not necessarily tech workers being the ones looking for new employment. Internal recruitment teams, HR and marketing were hit harder as opposed to tech roles.

Where FAANG Talent is Going Next
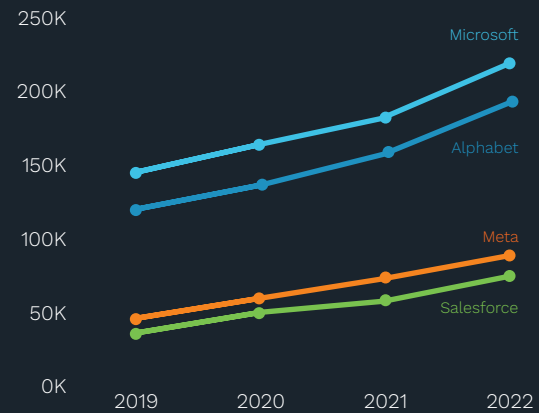
Source: State of Talent Report 2023 Takeaways by SignalFire

6.4% ENGINEERS WHO LEFT FAANG FOR EARLY STAGE STARTUPS

18,987 ENGINEERS LAID OFF FROM FAANG

27.8% HIRED AT ANOTHER FAANG

APPLE 3% 175 engineers

MICROSOFT 4.5% 269 engineers

AMAZON/AWS 9.3% 590 engineers

GOOGLE 11% 652 engineers

PRE-SEED 1% 60 engineers

SEED 2.1% 127 engineers

SERIES A 3.3% 196 engineers

75% of tech workers laid off in 2023 found their next job in 3 months or less.
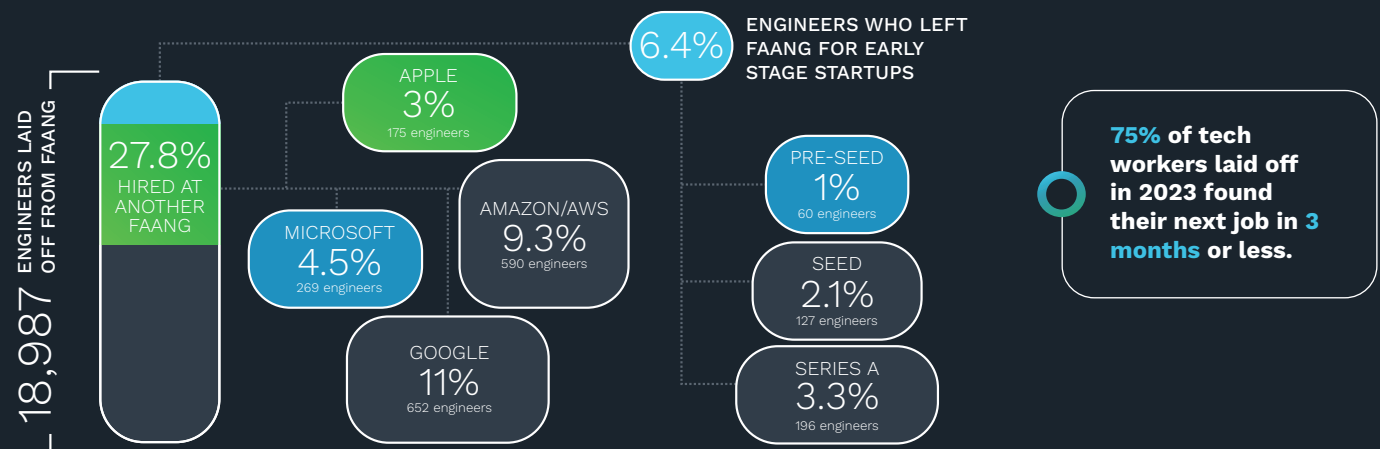
None of this is to diminish the number of layoffs that many had to deal with in 2023. Estimates put the number of tech workers laid off at over 230,000. Those are people who had to deal with the uncertainty of trying to find a new position while reading article after article about how the industry is crumbling. What the middle of 2023 showed is the resiliency of the IT industry and the people inside it.

Workers Laid Off by Department

Source: Interviewing.io's Layoff Data Analysis

Recruiting 50%
HR (Non-Recruiting) 48%
Finance 30%
Operations 24%
Data Science 20%
Marketing 13%
Product & Design 12%
Software Engineering 10%
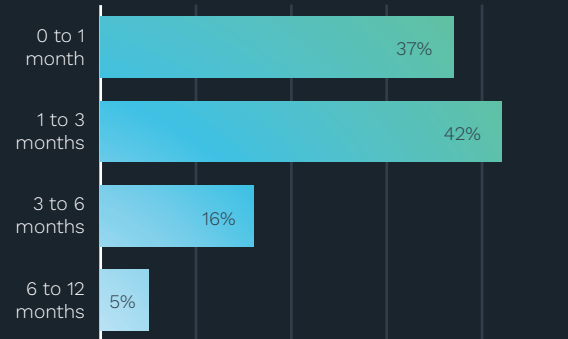Sales/AM/CSM 4%
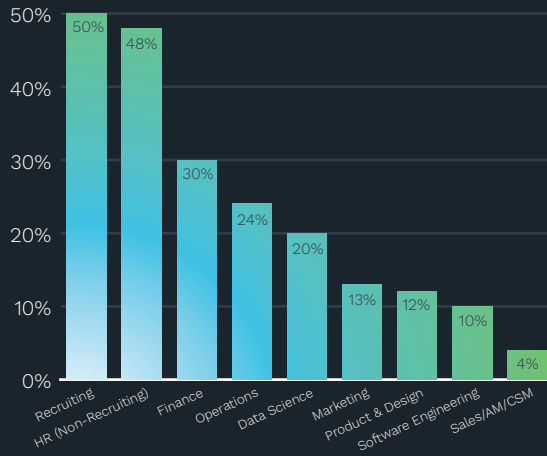
Survey Questions: How long did it take you to find your current job?

Source: ZipRecruiter Survey on Job Search Trends

0 to 1 month — 37%
1 to 3 months — 42%
3 to 6 months — 16%
6 to 12 months — 5%

Share of respondents who last worked in technology and were laid off or fired from their previous job

Top Reasons Tech Workers Decided to Start a Company After Being Laid Off

Source: 2022 Clarify Capital Survey

	Men	Women	Overall
For professional growth	55%	61%	58%
For more money	48%	55%	52%
To create something new	47%	52%	49%
To lead others	44%	51%	47%
To be their own boss	44%	51%	47%
For greater opportunities	41%	45%	43%
Job prospects looked bleak	40%	45%	43%
Not fulfilled working for others	34%	38%	36%
Not getting paid enough	34%	36%	35%
Unable to find the right position	34%	35%	35%
Difficulty getting hired	23%	24%	23%

Share of tech workers who say they decided to start a new business due to each factor

Of the people who reported being laid off, 79% of them found a new job within three months. Talent reabsorption continue at an all-time high, and according to our recruiters, people weren't just taking jobs out of desperation. Instead, many of these job seekers trusted their skills and abilities, were unwilling to take substantial pay cuts and were comfortable waiting to find a position that fit their needs best.

Additionally, a new contributor to the tech talent gap emerged. If those who were laid off couldn't find a role that met their expectations, many decided to make one for themselves by forming their own company. 63% of tech workers that were laid off said that they started their own company within 12 months of losing their job, with 93% of that group directly competing against their former employer.

Many of those who started a new enterprise didn't do it due to a lack of other options, with only 23% saying they were having difficulty getting hired, but rather to either grow their skills, make more money, or just create something new.
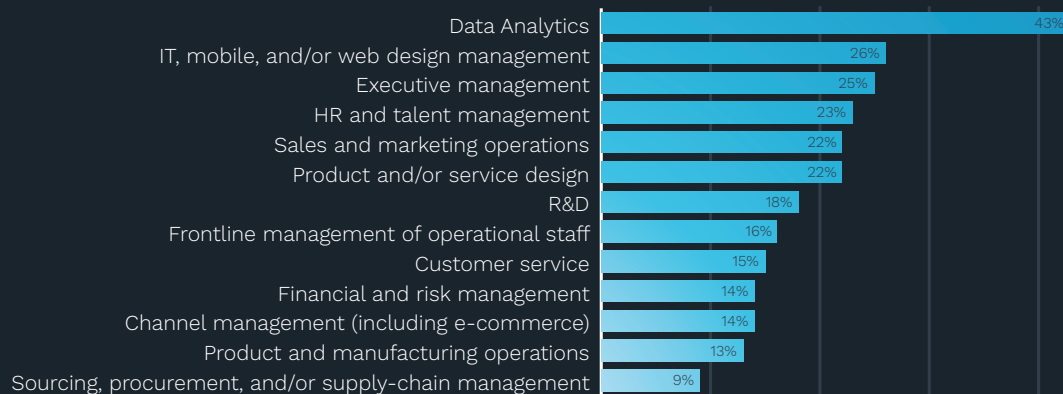
Looking Forward to 2024

Tech Talent Demand in 2024

Taking into account the events of 2023, the fact still remains that the demand for high-quality tech talent has never been higher. On the business side, as 2023 progressed, concerns about hyperinflation were proven unfounded in the United States and interest rate heights began to slow. Many companies in the S&P 500 beat Wall Street expectations, growing revenue and expanding profits.

Business Areas with Greatest Skill Gap

Source: Mind the [Skills] Gap by McKinsey & Company

Business Area	Percentage
Data Analytics	43%
IT, mobile, and/or web design management	26%
Executive management	25%
HR and talent management	23%
Sales and marketing operations	22%
Product and/or service design	22%
R&D	18%
Frontline management of operational staff	16%
Customer service	15%
Financial and risk management	14%
Channel management (including e-commerce)	14%
Product and manufacturing operations	13%
Sourcing, procurement, and/or supply-chain management	9%

Top Challenges in Recruiting Tech Employees

Source: MIT Technology Review Insights, HCL Tech

Challenge	Percentage
Candidates lack necessary skills or experience	64%
Overall shortage of candidates	56%
Difficulty meeting candidates' salary expectations	54%
Candidates lack necessary credentials	31%
Difficulty meeting candidates' nonsalary expectations	30%
Candidates are not a good fit for our organization	29%
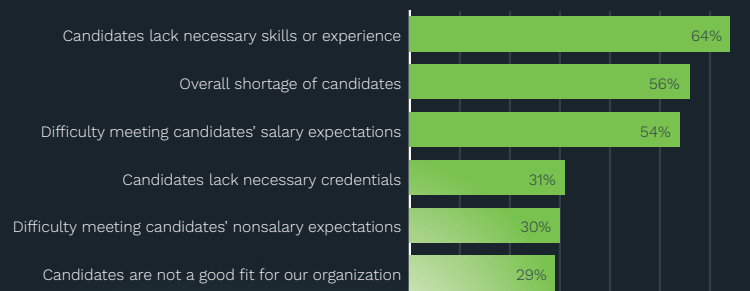
Many non-tech companies were less affected by the conditions of early 2023 that led to layoffs, continuing to grow and enhance their technical resources. 71% of HR professionals outside of tech companies said they are hiring for growth, with 52% saying they are backfill hiring. This gives tech workers the opportunity to move to tech roles inside companies that might not be on the cutting edge but offer stable jobs at levels of income that are expected for those roles.
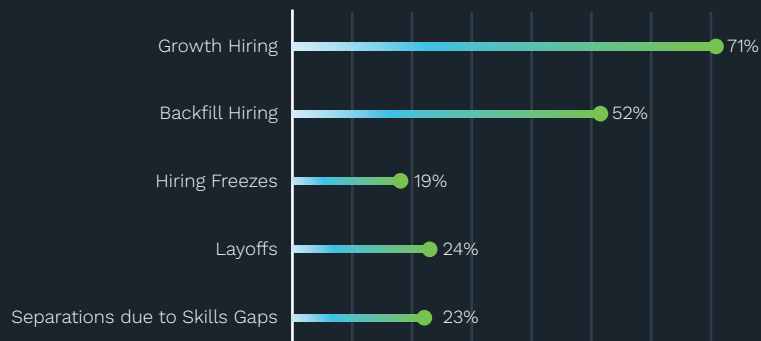
Critical Skills for Tech Functions

Source: 2023 Global Technology Leadership Study by Deloitte

Skill	%
Leadership (e.g., inspiration, communication, executive presence)	54%
Problem-solving and decision-making	47%
Relationship skills (e.g., influence, partnerships, collaboration)	44%
Creative and innovative thinking	41%
Data science and analytics	40%
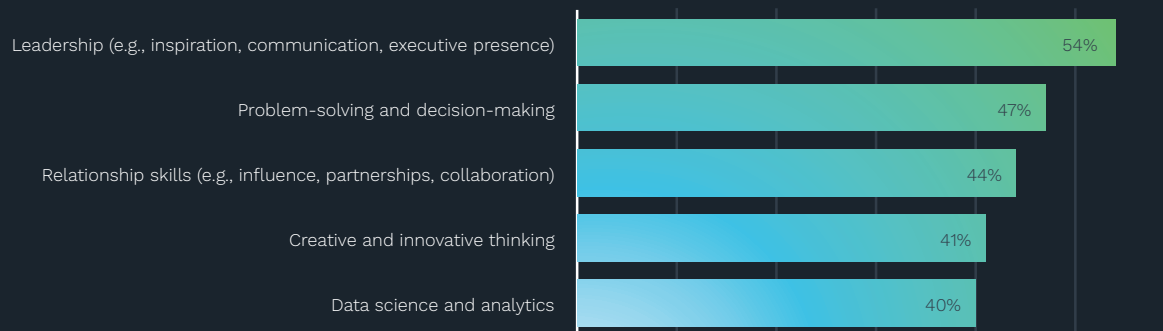
HR Pros and the Pace of Hiring

Source: Workforce and Learning Trends 2023 by CompTIA

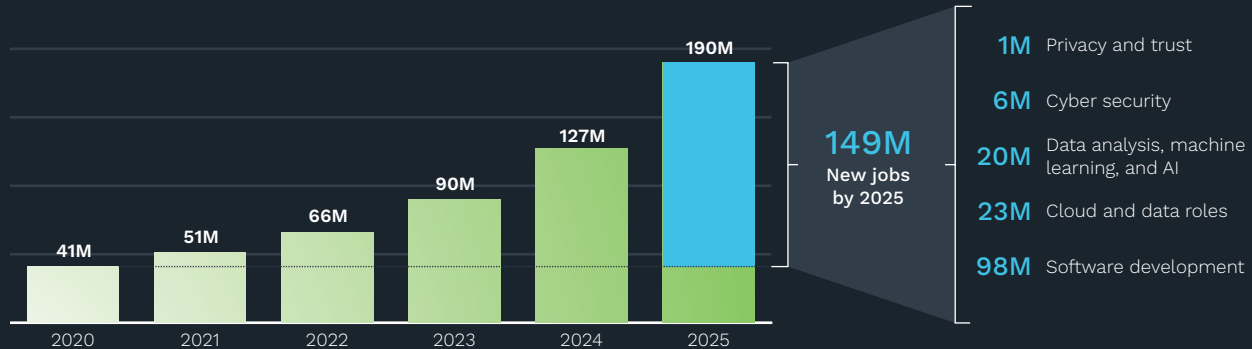| Category	%
Growth Hiring	71%
Backfill Hiring	52%
Hiring Freezes	19%
Layoffs	24%
Separations due to Skills Gaps	23%

Read more: What IT Professionals want from their jobs in 2024.

You may have noticed that in the summer of 2023, there was an unusual increase in the amount of PTO taken – with an 11% increase of vacation time off – making the hiring process slower in the summer. While there are a number of contributors, statistics have shown a noticeable increase in burnout, as companies that had layoffs earlier in the year force workers to "do more with less." Additionally, the stormy clouds of uncertainty from 2021 to even the beginning of 2023 subsided, so workers previously fearful of losing their jobs could feel comfortable taking PTO. When the seemingly industry-wide summer vacation ended, there was an uptick in tech hiring – particularly of in-demand roles.
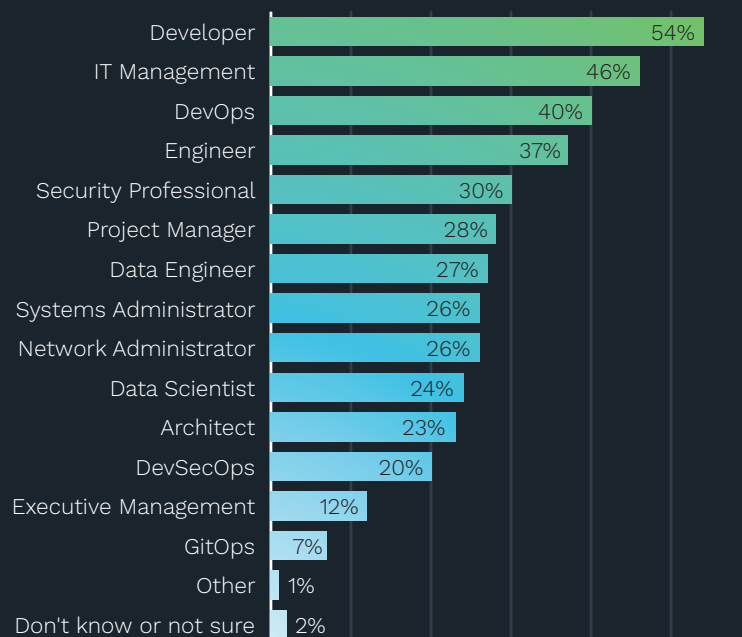
Great Lockdown Accelerates Transformation

Source: Microsoft Data Science, "Digitazation Capacity of the World Economy"

Year	Jobs
2020	41M
2021	51M
2022	66M
2023	90M
2024	127M
2025	190M

149M New jobs by 2025

- **1M** Privacy and trust
- **6M** Cyber security
- **20M** Data analysis, machine learning, and AI
- **23M** Cloud and data roles
- **98M** Software development

Continuing the trends of the past few years, companies are on the constant lookout for cyber security talent, both inside and outside of IT companies. A sector that has been at or near zero percent unemployment rate, cyber security will remain one of the most in-demand skill sets in tech. However, specifically inside tech companies, developers and IT management are the roles that are being most recruited. For those businesses looking to build and scale a product, these roles are what hiring managers need most.

Developers and IT Managers Most Recruited Roles

Source: Linux Foundation: 2023 Tech Talent Survey

Role	Percentage
Developer	54%
IT Management	46%
DevOps	40%
Engineer	37%
Security Professional	30%
Project Manager	28%
Data Engineer	27%
Systems Administrator	26%
Network Administrator	26%
Data Scientist	24%
Architect	23%
DevSecOps	20%
Executive Management	12%
GitOps	7%
Other	1%
Don't know or not sure	2%

Despite the concerns and consternations that flooded the start of 2023, the tech industry quickly stabilized and is still one of the best sectors to work in the United States economy. For those in the IT industry who are looking for work after being laid off or want to progress in their careers, there are steps they can take to improve their candidacy during their search. Things like upskilling, seeing how new advancements in technologies (like artificial intelligence) are impacting your profession, and possibly compromising with employers when it comes to working from home.

In Office, Hybrid, Or Remote?

The Workplace Debate Continues into 2024

Workplace Environment

Since 2021, there has been a continuing debate on working from home versus a hybrid schedule versus full-time in the office. While the tech industry continues to be ahead of other sections of the economy in allowing workers to fully work from home, even in IT there has been a clawback from businesses wanting employees out of their homes and back into the office.

Share of Companies That Allow Full Remote Work
Source: Flex Report: 2023 Tech Industry Deep Dive
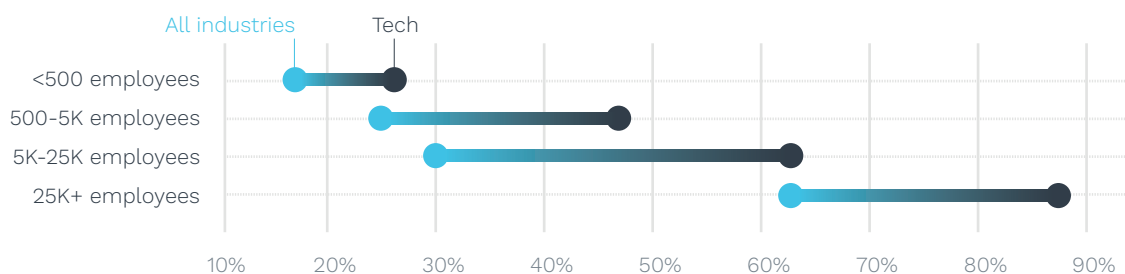
That isn't to say that workers in tech are all heading back in. Five out of the top eight job titles that have the highest percentage of fully remote workers are tech workers, and 77% of one tech talent survey said that they would be willing to work fully remotely for their job. However, job listings that advertise fully remote positions have dropped over the past year.

Top 8 Remote Jobs in US

Source: Remote.com's "Industries with the Most Remote Opportunities"

Rank	Job Role	US % jobs that are remote
1	Web Developer	36.93
2	Software Engineer	36.16
3	Data Scientist	30.5
4	Copywriter	28.88
5	Architect	26.75
6	Account Manager	24.99
7	Cyber Security	23.21
8	Data Analyst	21.76

When talking to recruiters, one important issue that was brought up frequently was tech workers moving out of cities and away from company offices, assuming that full work from home would continue indefinitely. However, once demands for returning to the office were put into place, those who moved had an untenable commute. A Gallup survey found that 52% of those who prefer working remotely listed avoiding commuting time as a top reason they don't want to go into the office.

How Much do Tech Workers Go In Office?

Source: LinkedIn survey data via Motion Recruitment

49%

17%

14%

19%

0 Days in Office

1 or 2 Days in Office

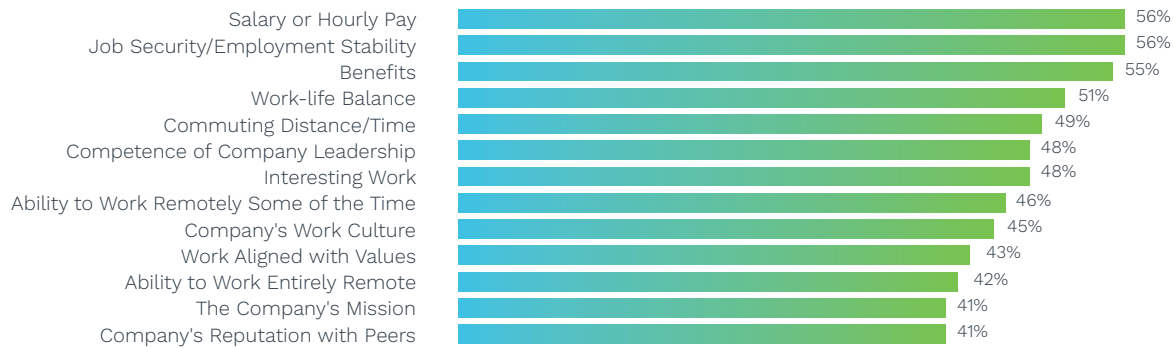3 or 4 Days in Office

5 Days in Office

How to attract talent in 2024: Flexibility. Read more on how to build a flexible workplace for tech workers.

Workers themselves are conflicted about a return to the office, as only 28% of workers said their company is making it worthwhile to come into the office, and over 50% of frontline workers believe that being fully in office was ideal for career advancement. That same survey showed that 62% of senior business leaders believe that there's a proximity bias between the in-person and remote/hybrid workforce.

What Tech Workers Consider Most Important in a New Role

Source: Morning Consult's "What Tech Workers Want to Do Next"

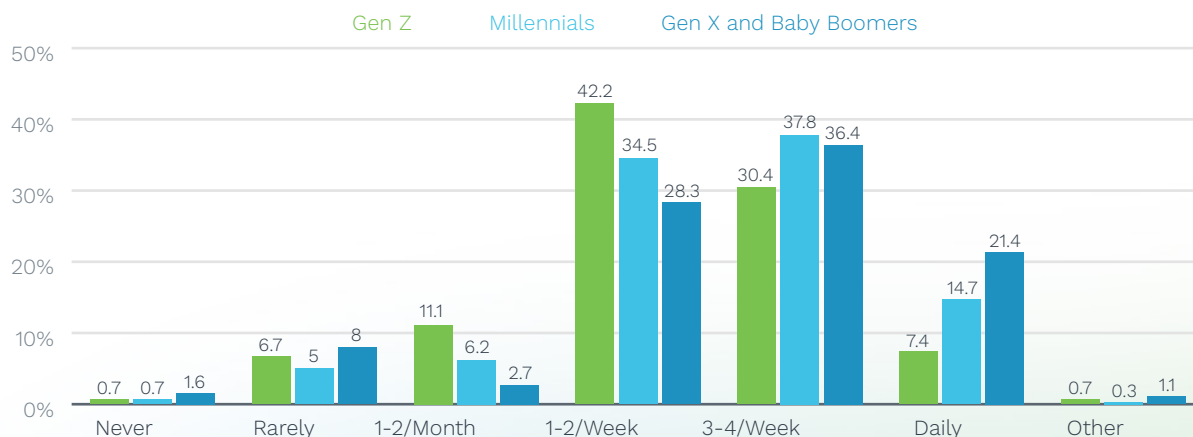|	
Salary or Hourly Pay	56%
Job Security/Employment Stability	56%
Benefits	55%
Work-life Balance	51%
Commuting Distance/Time	49%
Competence of Company Leadership	48%
Interesting Work	48%
Ability to Work Remotely Some of the Time	46%
Company's Work Culture	45%
Work Aligned with Values	43%
Ability to Work Entirely Remote	42%
The Company's Mission	41%
Company's Reputation with Peers	41%

Where does that leave tech workers and companies? As one of our recruiters said, both sides need to be able to compromise, and that compromise seems to have landed on a hybrid schedule with expanded local hiring.

75% of all companies are allowing some sort of remote work, with 2.2 days working remotely on average. It does appear that while most workers feel that 5 days in the office is a non-starter for a job and will not accept an offer if it is full-time in the office, many tech workers are becoming more accepting of the hybrid schedule. Interestingly, there is a noticeable difference between generations in their preferences of where they are working, with Gen Z mostly looking to be in the office multiple times a week, while Generation X and Baby Boomers are the age group most likely by far to want to work from home full time.

How Often Workers Want to Work Remotely

Source: Hubble HQ's Future of Work Survey

Gen Z   Millennials   Gen X and Baby Boomers

	Gen Z	Millennials	Gen X and Baby Boomers
Never	0.7	0.7	1.6
Rarely	6.7	5	8
1-2/Month	11.1	6.2	2.7
1-2/Week	42.2	34.5	28.3
3-4/Week	30.4	37.8	36.4
Daily	7.4	14.7	21.4
Other	0.7	0.3	1.1

According to interviews with recruiters across the country, companies and hiring managers no longer want to do a nationwide search for most roles. They are willing to shrink the possible candidate pool to get candidates that are local to their office. Even if a role a company is hiring for can be done fully remotely, many are employing a 50 or 100-mile "bubble," a topic discussed in last year's guide. This hiring strategy allows for a worker to do their job from home but head into the office as needed for major meetings, team collaboration and workshopping without expenses such as flights and hotels.

Remote and Hybrid Tech Job Postings

Source: CompTIA Tech Jobs Report + Analysis
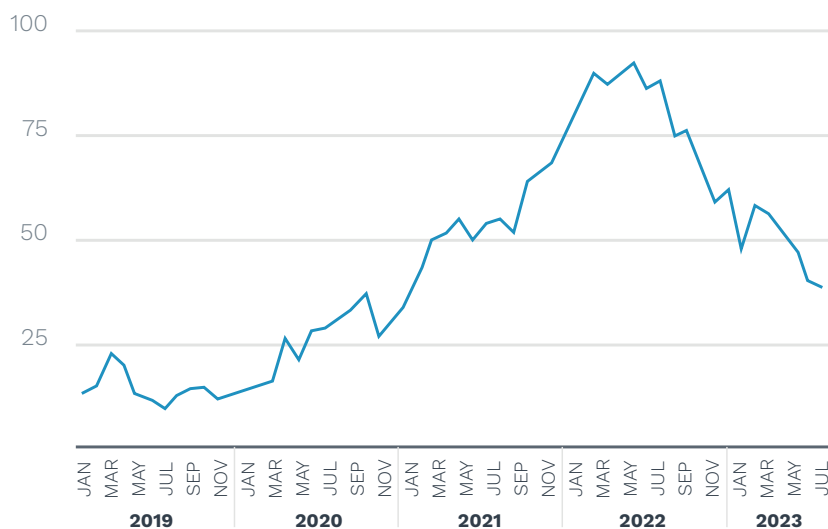
Companies and managers can keep workers happy while being in the office by making sure there is an added benefit to being there. Tech workers forced into the office only to sit at a desk with headphones on will see no benefit of being in the office which could lead to them looking for new opportunities. When going into the office leads to things like one-on-one time with managers to go over career goals and promotional paths, collaborations with team members that are difficult to do over Zoom calls or hands-on upskilling opportunities, then employees tend to look at heading to the office more favorably.

Looking for a fully remote position in tech? Explore 100% remote roles on our job board.

For both sides, the crux of the issue is continuing the conversation and making sure value is being added. For those looking to work from home full-time, productivity has to be maintained. Numerous studies have been launched attempting to measure if those who work from home are more or less productive than in the office, and results have been mixed. Success will come down to knowing how an employee will work best combined with having a management that knows how to bring out the best in their teams, no matter where they are doing their job.

Artificial Intelligence in 2024

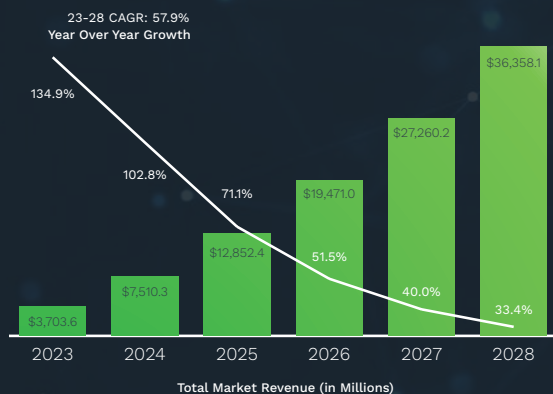## How is the Next Big Thing Shaking Up the IT Job Market?

No topic has been more talked about in tech than the newest advancements in Artificial Intelligence and its potential impact not only on the tech job market but on the overall economy. Even though the technology has been around in some way for decades, search trends for the term "Artificial Intelligence" hit their all-time high in April 2023, and there continues to be interest from the average population that likely gives this technology more staying power than other recent trends like cryptocurrencies and the metaverse – demonstrated in the investment in the market.

While debates go on about how tools like ChatGPT might take over the world, when it comes specifically to the tech job market, most businesses have both short-term and long-term plans when it comes to AI and Machine Learning technologies.

The World Economic Forum's 2023 Future of Jobs Report says that AI and Big Data will be the biggest reskilling focus for companies inside the US, and AI and Machine Learning jobs will be the second highest key role for business transformation in the next five years. 45% of tech leaders are saying that AI spending is a top priority for their company, and data center spending on AI processors will grow 4 times what it is now by 2025.

Generative AI Market Revenue ($M)
Source: S&P Global Market Intelligence

23-28 CAGR: 57.9%
Year Over Year Growth

134.9%

102.8%

71.1%

51.5%

40.0%

33.4%

2023	2024	2025	2026	2027	2028
$3,703.6	$7,510.3	$12,852.4	$19,471.0	$27,260.2	$36,358.1

Total Market Revenue (in Millions)

Generative AI Growth by Segment
Source: S&P Global Market Intelligence

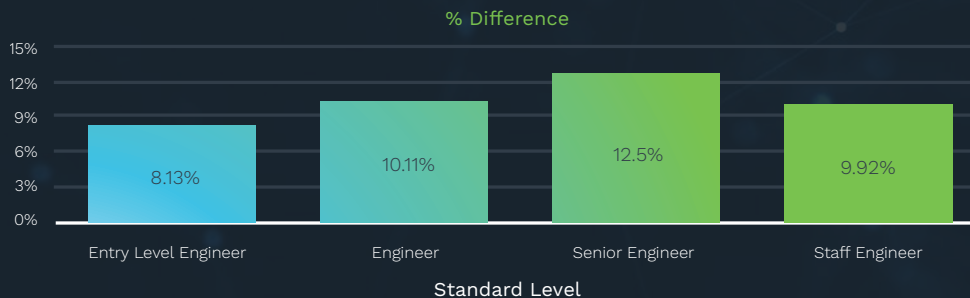| Segment	23-28 CAGR
Code Generators	72.9%
Image Generators	65.8%
Video Generators	61.2%
Audio Generators	59.6%
Numeric/Structured Data Generators	59%
Foundation Models	56.6%
Text Generators	29.9%
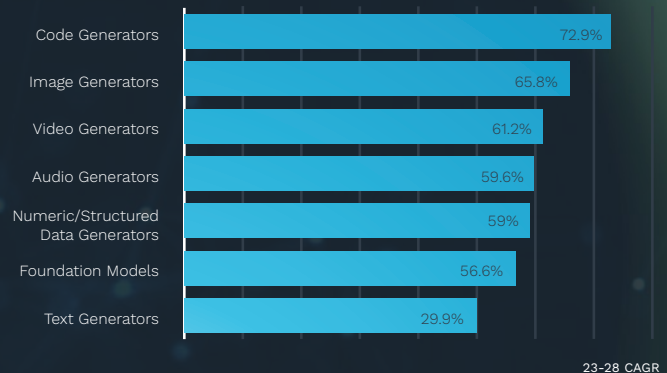
There is a massive amount of money currently being invested, spent and made in the AI space across the entire economy, with companies like Netflix making news for offering jobs at over 900k/year for an AI-focused Product Manager. Inside the tech world, those who already have an AI skill-set are getting a salary boost versus their peers with software engineers that are AI-focused seeing between an 8% and 12% compensation bump compared to their non-AI counterparts, depending on seniority.

Compensation Increase For AI versus Non-AI Roles

Source: levels.fyi

% Difference

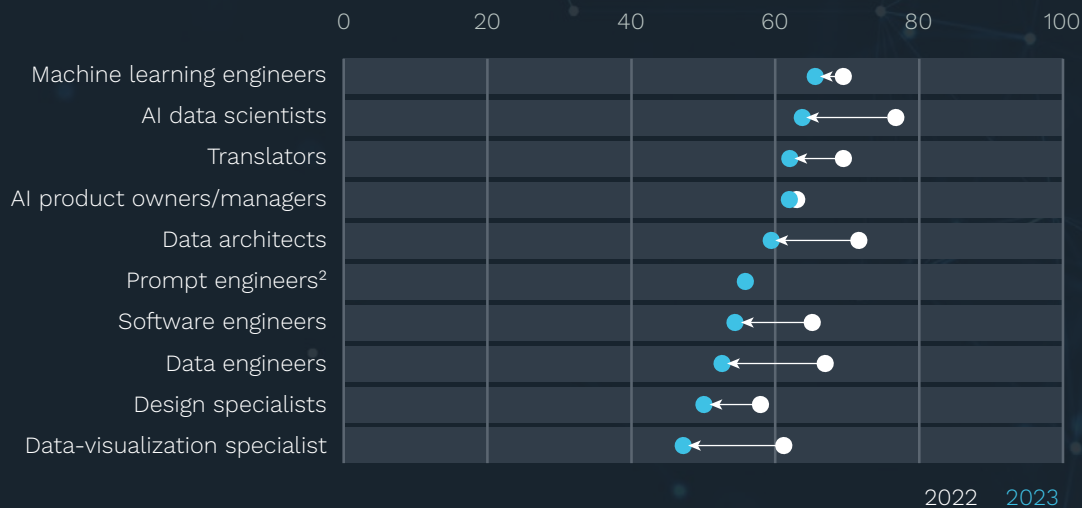|	Entry Level Engineer	Engineer	Senior Engineer	Staff Engineer
	8.13%	10.11%	12.5%	9.92%

Standard Level

> **If you're looking for a job in AI or with AI, check out the open roles on our job board.**

Tech workers are taking the hint, as while it is still a challenge for hiring managers and companies to find quality candidates for AI-related roles, it's becoming slightly easier year-over-year, with some roles being easier to find by over 10%.

Hiring for AI-Related Roles

Source: McKinsey Global Survey on AI, 2023

Share of respondents reporting difficulty in organizations' hiring of AI-related roles[1] %

Machine learning engineers
AI data scientists
Translators
AI product owners/managers
Data architects
Prompt engineers[2]
Software engineers
Data engineers
Design specialists
Data-visualization specialist

2022   2023

[1] Asked only respondents whose organizations have adopted AI in at least 1 function and who said their organization hired the given role in the past 12 months. Respondents who said "easy," "neither difficult nor easy," or "don't know" are not shown.
[2] Not asked of respondents in 2022.

While companies across the world are spending top dollar for IT workers who can create AI and ML tools that help computing and processing powers take giant leaps forward, others inside the industry have fears that these advancements will come at the expense of their jobs. A survey of tech professionals showed that over half (52%) are worried about losing their jobs due to automation or Artificial Intelligence, compared to only 26% disagreeing with the concern.

However, there have been many recent examples of companies attempting to use AI as an end-to-end solution that have ended in disaster. Fully automated news articles riddled with factual errors and mistakes, thoroughly unhelpful chatbots, and attorneys fined for attempting to use generative text for briefs are just a few issues, with many other examples out there of AI failures.

Generative AI Related Risks

Source: McKinsey Global Survey on AI, 2023

Generative AI-related risks that organizations consider relevant and are working to mitigate, % of respondents[1]

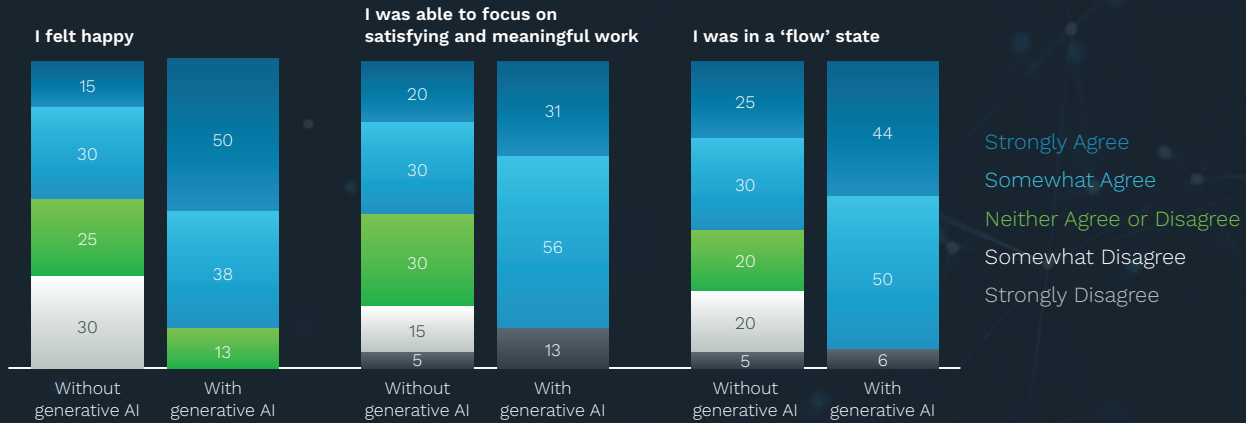|	Organization considers risk relevant	Organization working to mitigate risk
Inaccuracy	56	32
Cyber Security	53	38
Intellectual-property Infringement	46	25
Regulatory Compliance	45	28
Explainability	39	18
Personal/Individual Privacy	39	20
Workforce/Labor Displacement	34	13
Equity and Fairness	31	16
Organizational Reputation	29	16
National Security	14	4
Physical Safety	11	6
Environmental Impact	11	5
Political Stability	10	2
None of the Above	1	8

[1]Asked only respondents whose organizations have adopted AI in at least 1 function.

As of now, AI can be a useful productivity tool that allows workers to blow past remedial tasks and focus on complex, more rewarding work. One study of developers after being introduced to an AI tool found that they produced 46% more code at a 55% faster rate. Most importantly, the developers said they were 75% more fulfilled in their work after using the AI tool.

Generative AI Tools for Developer Experience

Source: McKinsey & Company

I felt happy

Without generative AI	With generative AI
15	
30	50
25	38
30	13

I was able to focus on satisfying and meaningful work

Without generative AI	With generative AI
20	31
30	56
30	
15	13
5	

I was in a 'flow' state

Without generative AI	With generative AI
25	44
30	50
20	
20	6
5	

- Strongly Agree
- Somewhat Agree
- Neither Agree or Disagree
- Somewhat Disagree
- Strongly Disagree

In reality, we are still at the beginning stages of this technology, and the final use cases of AI and machine learning vary wildly. There is the possibility that this tech will become a valuable productivity tool for many, but not the economy-altering revolution that some have predicted. However, there is an equal chance that this technology has the opportunity to fundamentally change how work gets done, both in the IT industry and beyond.

While we all wait and see where AI ends up, for those in the tech industry it would be wise to invest time in seeing what AI tools are being implemented in your field and see if there is an opportunity to upskill so you can reap the financial as well as work fulfillment benefits of AI.

> "Human intelligence needs to be part of the (software development) process to accomplish and present work to business partners and stakeholders.
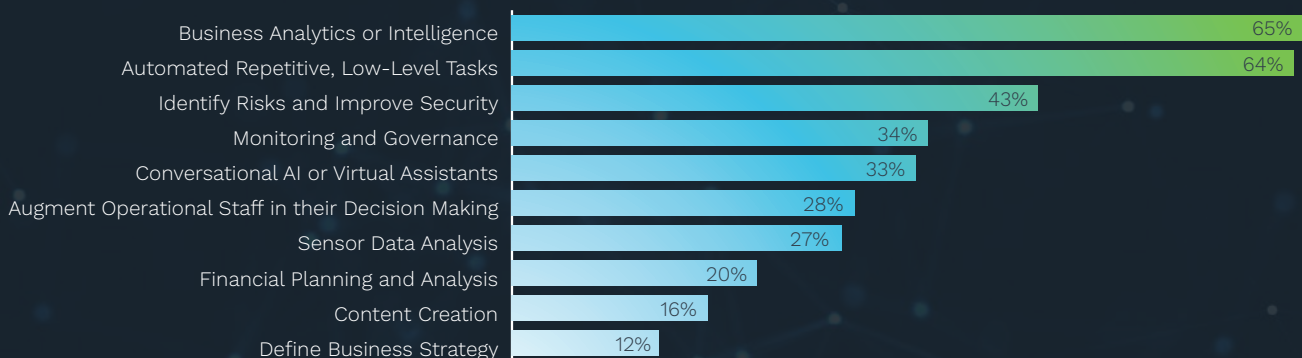>
> I strongly believe engineers are not replaceable. Generative AI will make the day-to-day work of engineers more fun and creative."
>
> **Fouad Bousetouane**
> Director of ML, Grainger
>
> **WATCH:** How AI is Transforming the Way Software Developers Work

Roles Most Impacted by Use of AI

Source: Stanford University,'s 2023 Artificial Intelligence Index Report

Role	
Business Analytics or Intelligence	65%
Automated Repetitive, Low-Level Tasks	64%
Identify Risks and Improve Security	43%
Monitoring and Governance	34%
Conversational AI or Virtual Assistants	33%
Augment Operational Staff in their Decision Making	28%
Sensor Data Analysis	27%
Financial Planning and Analysis	20%
Content Creation	16%
Define Business Strategy	12%

HOW WILL AI CHANGE THE WAY SOFTWARE DEVELOPERS WORK?
Click to read 8 ways you can expect things to change.

Advice from the Experts for 2024

○ **For Both Hiring Managers and Tech Workers:**

Create Balance Through Compromise

Moving into 2024, we are at a point where neither hiring managers nor tech workers have the upper hand in the marketplace, and both need to find common ground so both can thrive in the years ahead.

For hiring managers, while demand for tech talent slightly lowered at the start of the year, it by no means subsided and only grew as 2023 has progressed. Because of this, attempting to lowball candidates, cutting benefits or overworking employees once they arrive is a recipe for disaster.
For tech workers, setting reasonable expectations for the salary range you're willing to accept will help you in your job search, along with working with managers on a flexible hybrid work environment that allows for occasionally coming into the office along with days working from home.

Invest in AI:

Next-generation artificial intelligence tools appear to be here to stay, and both hiring managers and tech workers would be wise to find out how these exploding technologies are affecting their part of the IT economy.
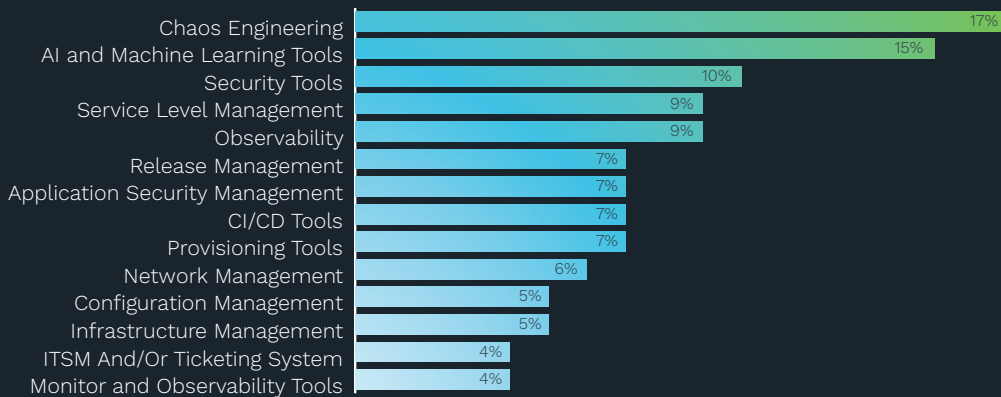
Tech workers need to learn and understand the AI tools and programs that are being used currently in your area and see how you can implement them in your workflow. Even if the tools aren't ready for prime time and can only help in basic tasks, having a background in these AI programs could have lasting benefits long-term as the technology advances.

Hiring managers and companies should be looking to empower workers to upskill in these AI tools and possibly go beyond having workers use free, readily available tools like ChatGPT and invest in paid tools to help workers become more productive. While attempting to fully replace workers with AI tools in 2024 is probably a bad idea, spending money to help workers become more productive is always a good investment.

Top IT Automation Tools Planned for Future

Source: Global SRE Report 2022

| Tool	Percentage
Chaos Engineering	17%
AI and Machine Learning Tools	15%
Security Tools	10%
Service Level Management	9%
Observability	9%
Release Management	7%
Application Security Management	7%
CI/CD Tools	7%
Provisioning Tools	7%
Network Management	6%
Configuration Management	5%
Infrastructure Management	5%
ITSM And/Or Ticketing System	4%
Monitor and Observability Tools	4%

For Hiring Managers

Unicorns Aren't Real, Don't Delay Hiring for One:

While the market has softened slightly and salary demands are no longer rising at the rates they were in years past, it is still difficult to find tech talent in 2024. Many companies are probably looking for the exact same skills you are, so if you find someone who fits your company culture as well as the abilities you're looking for in a role, do not think you can prolong the hiring process or pay a candidate lower than what they are worth.

Our recruiters told us that on multiple occasions, a hiring manager was going through the interview process with a candidate they liked, however, they wanted to keep looking to find someone who was "perfect" and use the first as a backup option. Their unicorn didn't exist, and the first candidate was quickly picked up by a different business. Don't let perfection get in the way of success.

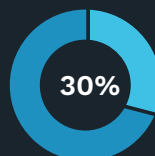## Why The Candidate Experience Matters
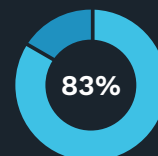
Source: Vervo's Survey on The Impact of Slow Hiring
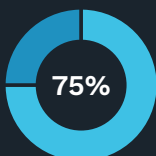
75% of employees accepted a job offer because of a positive candidate experience.
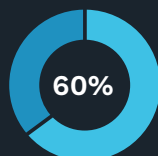
60% of applicants quit on application process because it was too long or complex.

30% of applicants ranked how responsive an organization is as the most important aspect of the candidate experience.

83% of candidates admit their overall experience would be improved if employers provided clear timelines for the hiring process.

Learn the Value of Inexperience:

Relatedly, even a perfect candidate that checks all the boxes of what you're looking for and has all the skills you need for a role might not be all it cracks up to be. Our experts said that candidates who already have the skills needed to do their job well can end up being bored in the role quickly and might start looking for new challenges at a different job, sometimes within a year of being hired.

If instead you look to hire someone slightly more junior and inexperienced, but talented and driven for the role, not only could you hire at a lower salary, but the person in the role will feel challenged from day one on the job, as well as more fulfilled and happier with the company as they grow into the position and expand their skill set.

For Tech Workers

Understand Who You Are and the Value You Bring

It is true that if you are an "A"-level talent in this market, you can still pretty much pick your salary and working arrangements, within reason. However, those true elite workers are few and far between. For the rest of us, have an honest assessment of where your skills are compared to the rest of your peers.
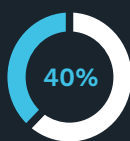
If you set unrealistic expectations for what you're willing to accept in a new role, not only will you end up being disappointed with whatever role you end up in, but also miss out on great opportunities that were previously dismissed.
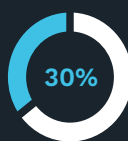
Top 3 Barriers to Upskilling

Source: DevOps Institute

44%
lack of time

40%
lack of budget
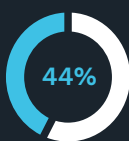
30%
making upskilling a priority

"To upskill, gain experience, or start a new role quickly, **consider a contract role. Here's why IT contracting is so popular right now.**

Find Ways to Grow:

As one of our recruiters said, **"In the tech industry, if you're not learning and growing, you're falling behind."** It is vital for tech workers looking to take their careers to the next level to find ways to upskill and increase their value. That could be through opportunities your company offers, taking leadership courses or advanced degree classes part-time or taking advantage of all the numerous freely available trainings online.

Have a conversation with your manager to see what skills the company is looking for, both in and out of your current role, and try and work towards filling that gap.

Put Your 2024 in Motion

Services & Opportunity

2024 promises to be one of the most exciting years to be a part of the IT industry, with new technological advancements happening every day and businesses looking to grow rapidly after a brief period of caution and economic slowdown. When considering what is best for your career or company, having experts on your side who can help along your journey is vital.

Motion Recruitment stays on the pulse of the tech world, seeing the innovative ways businesses and workers are staying a step ahead and can help guide you in making the right decisions for your business or job search in 2024 and beyond.

We hope that these insights and the following salary data help you better understand the tech industry, and we are always ready to hear your feedback, talk strategy, and work with you to lead you on a roadmap to success this year. Visit our website to contact a local expert and get started today.
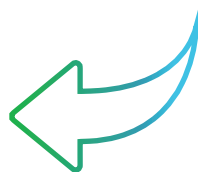
Tech Salary
Ranges

This section outlines the salary ranges in the US and Canada by role in major technology sectors. Leverage the city specific variances per tech sector on the following page for regional salary ranges per tech job.

PAGES 23-30

Contents

Tech Salary Ranges

Local Variances Per City + Tech

Use these local variances below as a multiplier to get a more accurate salary ranges for each area of technical expertise in the city you're hiring or looking for a role in. See the example below.

With many tech positions still remote or hybrid, traditional tech hubs have expanded and tech leadership is still adjusting. **See remote trends and how to handle in the tech marketplace here.**

Variances

	Arlington	Atlanta	Boston	Charlotte	Chicago	Dallas	Los Angeles	New York	Philadelphia	Phoenix	San Francisco	San Jose	Toronto
Software	1.034	0.915	1.019	0.844	0.951	0.945	1.115	1.062	0.883	0.935	1.263	1.261	0.956
Security	1.078	0.954	1.063	0.880	0.993	0.986	1.163	1.108	0.922	0.975	1.318	1.316	0.997
Product & UX	0.964	0.853	0.950	0.787	0.887	0.881	1.040	0.990	0.824	0.872	1.178	1.176	0.891
Mobile	1.190	1.053	1.173	0.972	1.095	1.088	1.284	1.223	1.017	1.076	1.455	1.452	1.101
Infrastructure	0.911	0.806	0.898	0.744	0.839	0.833	0.983	0.936	0.779	0.824	1.114	1.112	0.843
Functional	0.990	0.876	0.976	0.808	0.911	0.905	1.068	1.017	0.846	0.895	1.210	1.208	0.916
Data	1.051	0.930	1.036	0.858	0.967	0.961	1.134	1.080	0.898	0.950	1.285	1.282	0.972
AVERAGES	1.0258	0.9210	1.0137	0.9001	1.0091	0.9027	1.0988	1.0483	0.8915	0.8853	1.2218	1.1885	0.9688

Senior Data Scientist

Low Range: $146,000
High Range: $182,000
Average: $164,000

NEW YORK CITY
AVERAGE X 1.080
$177,120

SAN FRANCISCO
AVERAGE X 1.285
$210,740

***The city variances shown here are derived fully from analyzing internal company data, which is copyrighted and intended for personal use only.

These averages are to be used as a guide and actual salaries should be adjusted based on each person's abilities, experiences and technical skill level.

National Management/Executive

As described on the opening page, salary averages here represent low ranges and high ranges of the two levels.

Management	MIN	MAX
Chief Security Officer	$221,446	$343,187
VP of Engineering	$196,439	$254,766
Chief Technology Officer	$190,702	$233,927
Creative Director	$152,615	$226,429
Director of Engineering	$177,245	$217,445
Engineering Manager	$159,785	$204,777

Top Jobs of 2023

Source: Indeed

Job Title	Percent Change in Job Share 2020-2023
Full Stack Developer	56%
Data Engineer	44%
Cloud Engineer	42%
Senior Product Manager	45%
Back End Developer	60%
Site Reliability Engineer	55%
Machine Learning Engineer	37%
Product Design	48%

In Indeed's "Top Jobs of 2023," **8 out of the top 10 are tech positions.**

+18%

YEAR OVER YEAR

In the United States, the **number of job applications candidates have been submitting is up 18%** year-over-year from 2022 to 2023.

LinkedIn job posts that mention **artificial intelligence or generative AI** have seenan extra **17% more applications** over the past two years compared to job posts with no mentions.

Software Development

	MID LEVEL		SENIOR LEVEL	
	LOW	HIGH	LOW	HIGH
Software	**$111,261**	**$140,874**	**$130,243**	**$161,428**
Back End	**$118,908**	**$149,207**	**$137,560**	**$170,802**
.Net Architect			$148,238	$190,950
.Net Developer	$95,877	$122,077	$118,159	$146,648
Application Developer	$96,480	$122,208	$120,600	$140,700
BackEnd Developer	$123,030	$155,391	$146,027	$183,656
C++ Developer	$126,128	$169,644	$144,519	$190,950
Golang Developer	$146,836	$184,619	$149,906	$200,297
Java Architect			$148,238	$173,363
Java Developer	$104,154	$132,861	$122,208	$157,182
Microservices Engineer	$120,600	$140,700	$144,720	$163,011
Node.js Developer	$127,535	$147,333	$135,263	$171,554
PHP Developer	$110,550	$132,660	$122,811	$148,891
Platform Engineer	$141,564	$181,403	$144,218	$180,096
Python Developer	$114,872	$145,725	$146,529	$179,895
Ruby on Rails Developer	$119,269	$155,863	$145,082	$184,188

Desired and Admired Programming, Script and Markup Languages

Source: Stack Overflow
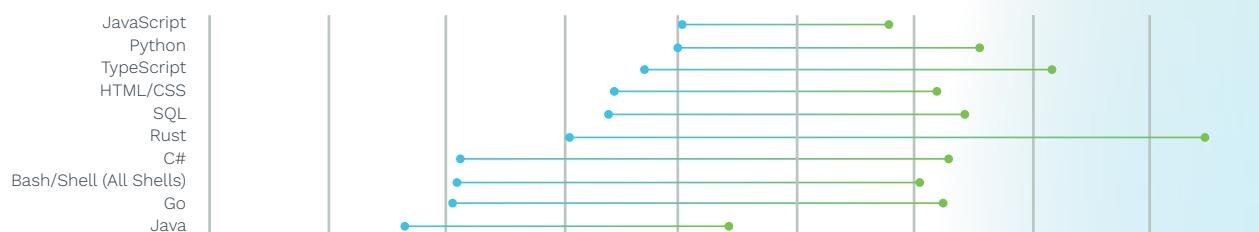
Most Desired (and Tested) Tech Stacks in Java and .Net

Source: DevSkiller Digital & IT Skills Report 2023

Java

1. Java 11   35.46%
2. Spring   30.42%
3. Spring Boot   17.28%
4. Maven   8.67%
5. JPA   8.16%

.NET/C#

1. .NET Framework   28.67%
2. ASP.NET   23.33%
3. .NET Core   19.5%
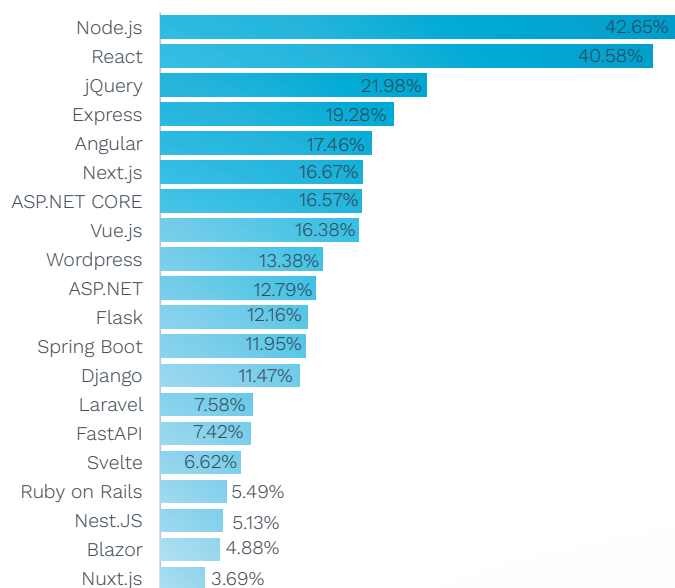4. ASP.NET MVC   14.67%
5. .NET 5   13.83%

	MID LEVEL		SENIOR LEVEL	
	LOW	HIGH	LOW	HIGH
Front End	**$113,722**	**$143,415**	**$122,363**	**$164,366**
Angular Developer	$107,965	$135,129	$117,925	$160,394
Javascript Developer	$114,183	$144,738	$125,752	$166,353
React Developer	$119,017	$150,377	$123,414	$166,353
General	**$112,806**	**$144,052**	**$138,694**	**$164,503**
Full Stack Software Developer	$124,419	$152,559	$144,360	$166,506
Gaming Engineer	$92,963	$133,163	$154,770	$165,825
Robotics Engineer	$127,233	$169,142	$125,625	$160,800
Sales Engineer	$118,892	$152,961	$130,650	$162,810
Salesforce Developer	$115,575	$150,750		
Solutions Architect			$151,419	$181,480
Software Architect			$156,780	$188,438
Software Developer	$99,834	$133,677	$123,007	$156,145
Technical Writer	$110,729	$116,110	$122,941	$134,022
Control Systems Engineer	$106,712	$122,105	$129,209	$145,805
Embedded	**$111,626**	**$143,851**	**$136,254**	**$166,147**
Embedded Engineer	$110,550	$148,439	$127,989	$158,730
Firmware Engineer	$112,703	$139,264	$144,519	$173,564

Most Popular Web Frameworks & Tech

Source: Stack Overflow Developer Survey, 2023

Framework	%
Node.js	42.65%
React	40.58%
jQuery	21.98%
Express	19.28%
Angular	17.46%
Next.js	16.67%
ASP.NET CORE	16.57%
Vue.js	16.38%
Wordpress	13.38%
ASP.NET	12.79%
Flask	12.16%
Spring Boot	11.95%
Django	11.47%
Laravel	7.58%
FastAPI	7.42%
Svelte	6.62%
Ruby on Rails	5.49%
Nest.JS	5.13%
Blazor	4.88%
Nuxt.js	3.69%

Skills Need Per Junior Developer Role

Source: DevSkiller's Digital & IT Skills Report 2023

Role	Number of Skills
React Developer	65
Angular Developer	63
Vue Developer	57
Android Developer	53
PHP Developer	43
iOS Developer	42
DevOps Engineer	41
.NET Developer	39
Java Developer	35
Automation Developer	31
C++ Developer	27
QA Engineer	27
Python Developer	25
Systems Admin	17
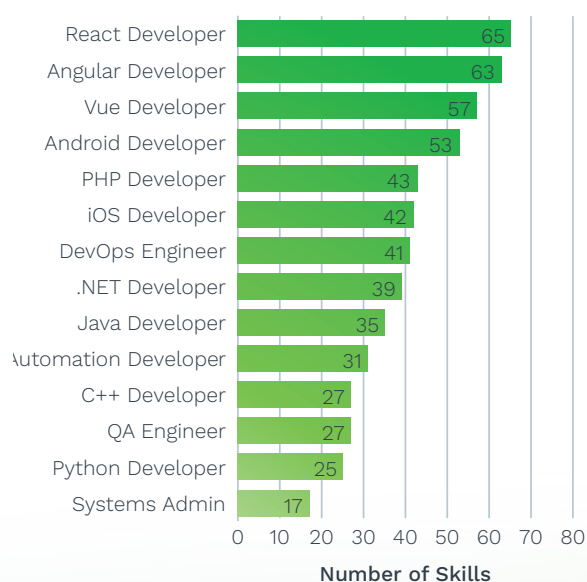
Product + UX, QA, Mobile

	MID LEVEL		SENIOR LEVEL	
	LOW	HIGH	LOW	HIGH
Product & UX	**$114,940**	**$142,821**	**$129,979**	**$161,044**
Product Designer	$121,577	$151,168	$137,014	$169,990
Product Manager	$123,372	$152,926	$136,554	$170,850
UI/UX Designer	$99,872	$124,369	$116,368	$142,291

> QA Automation Engineers saw a **10.6%** increase in salary on average YOY.

	MID LEVEL		SENIOR LEVEL	
QA	**$99,242**	**$123,845**	**$116,343**	**$141,323**
QA Analyst	$87,435	$98,490	$109,342	$125,625
QA Automation Engineer	$110,550	$135,675	$125,625	$144,720
QA Engineer	$88,998	$112,626	$106,269	$134,148
SDET	$109,984	$148,589	$124,136	$160,800
Mobile	**$123,438**	**$153,970**	**$140,302**	**$178,331**
Android Developer	$125,168	$162,398	$136,721	$187,508
iOS Developer	$115,335	$144,783	$142,938	$177,071
React Native Developer	$129,812	$154,728	$141,246	$170,414
Functional	**$100,996**	**$119,995**	**$118,119**	**$140,419**
Business Intelligence Analyst	$103,013	$129,947	$120,600	$146,027
Business Analyst	$81,544	$102,788	$91,706	$114,319
Product Owner	$106,467	$135,360	$147,399	$173,363
Project Manager	$106,398	$127,656	$108,266	$144,354
Program Manager	$118,045	$128,999	$143,014	$157,674
Project Coordinator	$90,510	$95,220	$97,730	$106,777

Top 6 Certifications for Product Development

1. Project Management Professional (PMP)
2. Certified Scrum Master (CSM)
3. Certified Manager Certification (CM)
4. Certified Scrum Product Owner (CSPO)
5. Certified Product Manager (CPM)
6. Master Project Manager (MPM)

27

Data

	MID LEVEL		SENIOR LEVEL	
	LOW	HIGH	LOW	HIGH
Data	**$116,611**	**$146,399**	**$144,582**	**$176,590**
AI Engineer	$109,983	$153,844	$146,319	$202,615
Business Intelligence Developer	$95,732	$116,919	$131,203	$146,288
Computer Vision Engineer	$130,650	$173,363	$155,775	$198,488
Data Architect			$169,279	$225,497
Data Analyst	$89,548	$113,771	$130,314	$153,095
Data Engineer	$128,148	$160,907	$143,749	$174,736
Data Modeler	$105,684	$124,958	$131,834	$158,226
Data Scientist	$125,435	$172,272	$146,730	$182,335
Database Engineer	$120,600	$157,986	$126,630	$184,120
Machine Learning Engineer	$125,853	$169,138	$159,016	$197,110
Data Warehouse Analyst	$123,509	$143,175	$149,576	$160,110
Data Warehouse Developer	$121,856	$130,081	$139,442	$150,114
Database Administrator	$122,335	$140,368	$149,693	$162,933

Top 6 AI Tools for Business Efficiency:

1. ThoughtSpot Sage

2. Chat GPT

3. Google Bard and Duet

4. Jasper

5. ChatSpot.ai by HubSpot

6. theGist

Demand for Data and Machine Learning roles is increasing, with Data Scientist demand up by 21% and demand for ML Engineers up by 15% year-over-year heading into 2024.

Infrastructure

According to a worldwide survey of IT executives, the biggest barrier to further utilize emerging cloud-based technologies is the lack of cloud skills in the IT workforce. However, with many companies moving to a multi-cloud environment, cloud-based career opportunities will continue to grow.

	MID LEVEL		SENIOR LEVEL	
	LOW	HIGH	LOW	HIGH
Infrastructure	**$94,075**	**$115,087**	**$122,603**	**$146,690**
Cloud Architect			$154,519	$191,536
Cloud Engineer	$123,537	$151,419	$141,046	$173,483
DevOps Architect/Coach			$169,760	$203,352
DevOps Engineer	$136,792	$167,890	$137,717	$181,553
Technical Support Analyst	$66,895	$82,598	$83,880	$93,053
Helpdesk Support	$57,985	$72,281	$77,831	$91,234
Infrastructure and Security Architect			$150,750	$170,850
IT Systems Analyst	$83,750	$106,647	$105,112	$119,354
Linux Administrator	$91,656	$106,329	$113,063	$135,273
Network Architect			$143,213	$183,413
Network Administrator	$86,795	$100,500	$109,997	$117,943
Network Engineer	$102,728	$122,850	$121,639	$144,685
Site Reliability Engineer	$124,449	$151,680	$149,669	$180,867
Support Engineer	$71,785	$99,495	$89,445	$108,540
Systems Architect			$154,702	$173,731
Systems Administrator	$84,538	$104,726	$97,485	$127,213
Systems Engineer	$97,988	$114,632	$116,336	$142,496

Agile

	MID LEVEL		SENIOR LEVEL	
	LOW	HIGH	LOW	HIGH
Agile	**$131,924**	**$140,155**	**$149,060**	**$164,881**
Agile Coach (Enterprise)	$120,735	$128,834	$136,911	$152,645
RTE/Release Train Engineer	$158,214	$167,683	$178,493	$190,607
Scrum Master	$116,824	$123,949	$131,775	$151,389

Highest Paying Tools to Know
(According to Tech Professionals)

Source: Stack Overflow Developer Survey, 2023

1. Zig — $103,611.00
2. Erlang — $99,492.00
3. F# — $99,311.00
4. Ruby — $98,522.00
5. Clojure — $96,381.00
6. Elixir — $96,381.00
7. Lisp — $96,381.00
8. Scala — $96,381.00
9. Perl — $94,540.00
10. Go — $92,760.00
11. OCaml — $91,026.00
12. Objective-C — $90,000.00
13. Flow — $88,934.00
14. Rust — $87,012.00
15. Swift — $86,897.00
16. Groovy — $86,271.00
17. Bash/Shell (all shells) — $85,672.00
18. Haskell — $85,672.00
19. Apex — $81,552.00
20. PowerShell — $81,311.00

Cyber Security

Top 10 Cloud Platforms, in Order:

Source: Stack Overflow Developer Survey, 2023

1. Amazon Web Services (AWS)

2. Microsoft Azure

3. Google Cloud

4. Firebase

5. Cloudflare

6. Digital Ocean

7. Heroku

8. Vercel

9. Netlify

10. VMware

	MID LEVEL		SENIOR LEVEL	
	LOW	HIGH	LOW	HIGH
Security	**$116,376**	**$140,379**	**$133,013**	**$162,963**
Cyber Security Architect			$132,861	$174,669
(Cyber) Security Engineer	$133,218	$150,551	$143,147	$173,463
Application Security Engineer	$123,269	$159,544	$141,885	$171,353
DevSecOps Engineer	$136,792	$167,890	$150,363	$191,476
Information Security Analyst	$100,500	$110,550	$115,464	$143,645
Information Security Engineer	$116,148	$143,464	$135,087	$159,116
Network Security Engineer	$122,268	$149,862	$120,600	$160,800
Security Architect			$152,950	$171,604
SOC (Security) Analyst	$82,437	$100,791	$104,610	$132,248
Pen Tester	$118,590	$155,775	$127,635	$175,875
Detection Engineer			$130,650	$231,150

Adding Value: Certifications

These certifications are listed on the most job listings in the US:

1 CISSP

2 AWS Certified Solutions Architect

3 CISM

4 AWS Certified Sysops Admin-Assoc.

5 Google Cloud: Professional Cloud Security Engineer

35% 35% of people reported a wage increase after earning a certification.

8% Certified tech professionals have 8% higher salaries versus non-certified professionals.

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Motion Recruitment provides premier IT staffing solutions (Contract, Contract-to-Hire, and Direct Hire) across 23 North American markets: Boston, New York, Philadelphia, Washington DC, Atlanta, Chicago, San Francisco, Silicon Valley, Jacksonville, Los Angeles, Minneapolis, Orange County, Birmingham, Des Moines, Greenville, Houston, Charlotte, Phoenix, Raleigh, Fort Worth, Dallas, Seattle and Toronto and offers Guides for fourteen of these.

Motion Recruitment offers a unique and deep expertise in finding and placing candidates with the highest in demand tech skill sets, such as UI/UX, Open Source, Microsoft Development, Network Security & Infrastructure, and Mobile Development.

Our high-touch, specialized and team-based recruitment model, paired with our deep networks and knowledge of our local technology markets, result in an exemplary track record. Motion Recruitment is also the proud creator of Tech in Motion, an international tech event series that connects 100,000 tech enthusiasts to meet, learn, and innovate.

DATA SOURCES
The data in this salary guide represents real market compensation ranges derived from 15 major cities in North America. The base salary ranges are divided between Mid-level (2-5 years) and Senior-level experience levels (5+ years). Role ranges may vary by company size, industry and organization structure. All data is propriety to Motion Recruitment, validated by external sources, and subject to copyright and infringement protections. Contact Motion Recruitment for more detailed information on methodology based on your specific needs.

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