



4 Tech trends in 2023 everyone must be ready for

What emerging tech trends will be shaping our digital world in the next 12 months? What technologies are gaining the most traction? What are the most important trends that business leaders should be prepared for? Read on for the four essential tech trends you should be following in 2023.

1. AI Everywhere

In 2023, artificial intelligence will become real in organizations. No-code AI, with its easy drag-and-drop interfaces, will enable any business to leverage its power to create more intelligent products and services.

We're already seeing this trend in the retail market. Stitch Fix uses AI-enabled algorithms to recommend clothes to its customers that match their sizes and tastes.

Contactless, autonomous shopping and delivery will also be a huge trend for 2023. AI will make it easier for consumers to pay for and receive goods and services.

AI will also augment nearly every job in every business process across industries. More retailers will use AI to manage and automate the complex inventory management processes that happen behind the scenes, so convenience trends like buy-online-pickup-at-curbside (BOPAC), buy

online-pickup-in-store (BOPIS), and buy-online-return-in-store (BORIS), will become standard.

AI will also be the engine behind the newest autonomous delivery initiatives that retailers are piloting and rolling out, and more and more retail workers will need to get used to working alongside machines to do their jobs.

2. Parts of the Metaverse Will Become Real

Experts predict that the metaverse will add \$5 trillion to the global economy by 2030, and 2023 will be the year that defines the direction of the metaverse for the next decade. Augmented reality (AR) and virtual reality (VR) technology will continue to advance. One area to watch is the work environment in the metaverse — in 2023, it's predicted that we'll have more immersive meeting environments where we can talk, brainstorm, and co-create together.

In fact, Microsoft and Nvidia are already developing metaverse platforms for collaborating on digital projects.

We'll also see more advanced avatar technology in the new

year. An avatar — the presence we project as we engage with other users in the metaverse — could look exactly like we do in the real world, and motion capture will even enable our avatars to adopt our unique body language and gestures. We also might see further development in AI-enabled autonomous avatars that can act as our representatives in the metaverse, even if we’re not logged into the digital world. Companies are already using metaverse technology like AR and VR to conduct training and onboarding, and this trend will accelerate in 2023. Consulting giant Accenture has already created a metaverse environment called the Nth Floor. This virtual world features replicas of real-world Accenture offices, so new hires and current employees can carry out HR-related tasks without needing to be present in a physical office.

3. Progress in Web3

Blockchain technology will also advance significantly in 2023 as companies create more decentralized products and services. For example, at the moment, we’re storing everything in the cloud — but if we decentralize



data storage and encrypt that data using blockchain, our information will not only be safer, but we’ll have innovative ways to access and analyze it. Non-fungible tokens (NFTs) will become more usable and practical in the new year. For example, NFT tickets to concerts will potentially give you access to backstage experiences and memorabilia. NFTs might be the keys we use to interact with many of the digital products and services we buy, or they could represent contracts we enter into with other parties.

4. Bridging the Digital and Physical World

We’re already seeing an emerging bridge between the digital and physical worlds, and

this trend will continue in 2023. There are two components of this merger: digital twin technology and 3D printing. Digital twins are virtual simulations of real-world processes, operations, or products that can be used to test new ideas in a safe digital environment. Designers and engineers are using digital twins to recreate physical objects inside virtual worlds, so they can test under every conceivable condition without the high costs of real-life experiments. In 2023, we’ll see even more digital twins, from factories to machinery to cars to precision healthcare.

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Career Guide

Quick & to the point – Career Advice

Question: *"Once and for all, what is THE best search engine to use to find a job?? There seem to be so many and I find myself all over the place. I really need to know."* - Henry Middle

Answer: With more than 875 million users, LinkedIn is the world's most popular social media network for professionals. LinkedIn doesn't only let people create their own profiles and search for jobs. It also lets those companies reach out to candidates and recruit them on the site. Features include targeted job promotion, recommended matches, and candidate management. Users can also share posts and publish their own content on this platform. They get opportunities in LinkedIn to boost their own standing through their own content. It's #1. Best of luck!

- Andrei

Fun & Interesting Facts about Technology

Did you know?

Russia built a computer that ran on water: in 1936

Before the miniaturisation of transistors, computers had a much more visible system of counting: things like gears, pivots, beads and levers were often used and they needed some sort of power source to function. Vladimir Lukyanov built something like this in 1936 but he used water to create a computer that solved partial differential equations. In images of the Lukyanov computer, you'll see a complex system of interconnected tubes filled with water. Adjusting taps and plugs altered the flow of water (and changed variables) while the end result was seen by measuring the level of water in certain tubes. It was also called a Water Integrator and was originally designed to solve the problem of cracking in concrete. It's now found in Moscow's Polytechnic Museum.

VETERNS, GET READY TO POWER YOUR TECH FUTURE AT GLOBAL IT

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A day in the life Technology Manager

IT Managers plan, direct, or coordinate activities in such fields as electronic data processing, information systems, systems analysis, and computer programming. We asked IT Managers how satisfied they are with their job and 72% of them said they were satisfied with their job and 49% said they find that their job makes the world a better place or helps to make someone else's life better. On a daily basis, IT Managers manage backup, security and user help systems. They consult with users, management, vendors, and technicians to assess computing needs and system requirements. One of the main responsibilities as an IT manager is to direct daily operations of department, analyzing workflow, establishing priorities, developing standards and setting deadlines. Some may also control operational budget and expenditures. In a normal work day, another thing that IT Managers do is they provide users with technical support for computer problems.



“Tell me about yourself” [How to answer this interview question]

The first rule of thumb for answering the Tell me about yourself question is to discuss what interests the interviewer. That means focusing on the experience and skills you have that will add value to the position. Relevancy is key to properly answering this interview question. Here are four quick tips:

1. *Start with an important strength the hiring manager is drooling for.*
2. *Tell how that skill or quality helped your recent employer.*
3. *Give metrics to show it helped a past employer too.*
4. *Tell how this new opportunity will help you grow your talents even more.*

GIT thought Provoking corner



"The great danger for most of us lies not in setting our aim too high and falling short; but in setting our aim too low, and achieving our mark."

– Michelangelo

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4 Very different type personal goals for 2023 that will grow you

As we journey through life, we all desire to better ourselves. We continually work on self-development and practice goal-setting to become better people. People often feel most inspired to begin improvement in the new year through setting resolutions. Some refer to this phenomenon as the fresh start effect.

1. Continually learn

There's a world of information and resources available to us at the click of a button. Be curious and pursue any kind of knowledge that interests you. Through learning we grow, and through growth, we're more likely to succeed. Research has also shown that lifelong learning keeps our brain functioning at its best. Learning should definitely near the top of your personal goals.

2. Become a good listener

The best listeners usually end up having good relationships in life. They're able to be effective in communicating to people. When you listen to someone, you show them you care, and as a result, they appreciate you more. Learn more about active listening to improve your listening skills.

3. Let the past go

When you dwell on the past, you spend less time on the present, and potentially miss a good opportunity. Sometimes it can be useful to talk to a professional when you're struggling to let go.

4. Be a conflict resolver

While you don't have to be the person that resolves every conflict, being someone that can help ease tensions can make you more respected. You can strive to be a calming voice that helps to make cooler heads prevail.

5. Develop perseverance

The ability to push through challenges and difficult circumstances is what helps us to achieve our personal goals. Learn more about perseverance and develop it into one of your personal strengths.



Top 10 IT Skills In-Demand for 2023

With more employers moving toward skills-based hiring and compensation models, acquiring new, in-demand skill sets is the key to remaining relevant and commanding higher pay in the coming year.

Assessments of recent job posting data confirms that skills, not degrees, are fast becoming the new currency of work.

For instance, professional networking site LinkedIn has seen a 21% rise in job postings that advertise for skills and responsibilities rather than qualifications and requirements. Given the trend, there's never been a better time to boost your abilities *and* your paycheck.

If you're looking to advance your career by acquiring new

technology skills in 2023, here are ten of the hottest areas you may want to consider and some of the best skills to learn in each:

Cloud Computing

The demand for cloud computing skills has soared, especially with businesses requiring more efficient and effective ways to manage increasingly decentralized data, systems and workers post-pandemic. Even better, the cloud engineer job market is home to significant skills gap – meaning there are more cloud computing job openings than qualified engineers to fill them.

Hot Cloud Computing Skills

The shortage of qualified professionals presents a golden opportunity for IT pros who train and certify in the leading cloud platforms - chiefly Amazon Web Services (AWS),

Microsoft Azure and Google Cloud.

According to a recent salary survey from Skillsoft, two of the top 3 highest paying IT certifications this year were in cloud computing: AWS Certified Solutions Architect – Professional at #1 (\$168,080) and Google Cloud - Professional Cloud Architect at #3 (\$161,371). The #2 slot went to cybersecurity, which we'll get into later.

However, a wide range of cross-platform skills in the cloud are highly marketable right now, including cloud migration, application development and deployment, application programming interfaces (APIs), database management and storage, and cloud management and security.

Artificial Intelligence

IT pros with artificial intelligence (AI) skills are in high demand and for good reason. Using computer programs to perform tasks similar to human cognition has the potential to reshape almost every aspect of how we live and work. Last year, some 33% of IT job postings asked for AI skills,

and 97 million more jobs will be created in this space by 2025. With employers already struggling to find specialists with the necessary skills for AI roles, today's average salary of \$145,065 is bound to keep increasing.

Hot AI Skills

Although each AI specialty requires a slightly different set of technical and soft skills, the overall top skills include machine learning, data science and algorithms, and a deep knowledge of math concepts such as calculus, algebra, statistics and probability.

While there's a growing selection of no-code and low-code AI solutions entering the market, many employers still seek a proficiency with programming languages such as Python, C++, R and Java for AI jobs as well.

On top of those qualifications, candidates will benefit from soft skills like emotional intelligence and effective communication to explain complex AI concepts to non-technical stakeholders and executives.



Cybersecurity

With employers posting 714,548 jobs for cybersecurity roles and skills during the 12-month period ending April 2022, cybersecurity continues to be one of the hottest domains for IT professionals. The US Bureau of Labor Statistics projects the job market for IT security specialists to explode by 35% from 2021 to 2031 – much faster than the 15% growth rate for all technology jobs and a whopping 7 times faster than the 5% rate for all occupations.

Hot Skills in Cybersecurity

The most in-demand cybersecurity subskills include penetration testing, application

security, network security and cloud security, but adding fundamentals like risk assessment, intrusion detection, security controls and frameworks, and incident response can bolster your market value even more. In fact, cyber-sec professionals with threat detection, modeling and threat management skills garnered premium pay equivalent to 16% of base salary.

Some IT certifications that offer the highest pay premium and

ROI are in cybersecurity as well. Boost your paycheck by earning the Cisco CCNA certification or CompTIA's Network+, Security+ or CySA+ credentials.

Cybersecurity managers can enjoy a major pay bump with ISACA's CISM certification, with an average salary of \$162,347 for cert-holders.

Data Science

With Gartner stating that some 91 percent of organizations have not yet reached a “transformational” level of maturity in data and information, the need to drive improved decision-making is just one reason why the number of jobs requiring data science skills is expected to grow 27.9% by 2026.

And though data scientist salaries vary widely depending on education, certifications and experience, the salary range for data science pros typically falls between \$124,000 and \$153,000.

Hot Data Science Skills

Since data science is a multidisciplinary field, it requires a broad range of skills. Foundational requirements typically include a bachelor's or master's degree and a proficiency in statistics, economics, information systems or computer science. Data science pros will also benefit

from the ability to program in languages such as Python, Java, SQL, C++, and R, as well as familiarity with one of the top Python libraries for deep learning, such as TensorFlow or PyTorch.

Other sought-after skills for data scientists include data wrangling, data intuition, pipeline building, feature engineering, querying, social media mining, and data visualization and storytelling. Like many other technical roles, data scientists need the following soft skills to thrive today: communication, critical thinking, problem solving, business acumen and intellectual curiosity. Experts claim that it also helps to have grit, passion and a healthy dose of skepticism.

Data Analysis

You don't need an advanced degree to join the data science revolution. Knowing how to mine, clean, sort and process data to extract relevant and valuable information can catapult you to a high paying career as a data analyst, data engineer, consultant, business analyst, marketing analyst, IT systems analyst, project

manager or even data scientist (with additional training).

Speaking of skills being the new currency for employment and advancement, the average salary for job titles that require data analytics skills is \$195,385, according to Salary.com. Impressive!

Hot Data Analysis Skills

In addition to proficiency with fundamental data analysis methods, processes and techniques, having a strong background in math and knowing how to use SQL to extract data and Microsoft Excel to analyze datasets can help you compete in this growing job market. Other desirable data skills in data analysis include programming chops in Python and R, as well as the ability to communicate findings using data visualization and presentation skills.

Succeeding in any job involving data analysis also requires excellent soft skills including collaboration, critical thinking and problem-solving.



DevOps

Could DevOps be the hottest tech skill out there? Based on an analysis of job postings and salary data, we know that career opportunities for DevOps pros are continuing to soar. We also know that the future looks bright for anyone with DevOps skills, since the market exceeded \$4 billion in 2019 and is projected to grow by over 20% between 2020 and 2026.

Hot DevOps Skills

To master DevOps, you must first understand what it is. DevOps is a cultural philosophy and set of practices and tools that integrates software development and operations teams to shorten the development cycle. In short, DevOps requires a different model and mindset.

In addition to learning marketable DevOps programming and scripting languages such as Python, PHP, PERL and Java, you will need to learn DevOps practices like continuous integration, testing and delivery, microservices and infrastructure as code. And since the goal is to break down silos, it should go without saying that excellent soft skills

in communication and collaboration are crucial to succeeding in DevOps.

Machine Learning

With companies investing millions of dollars in machine learning (ML) research and projects, it's no wonder that ML made our list of the most in-demand IT skills for 2023.

What is machine learning? ML is a subfield of artificial intelligence that uses algorithms to give computers the ability to learn and grow smarter without being programmed. However, to become a highly paid ML engineer (the fourth fastest growing job in the US over the last five years) or qualify for other ML-related roles, you need to become proficient with ML concepts and technologies.

Hot Machine Learning Skills

Generally, machine learning professionals must be skilled in computer science fundamentals and programming, probability and statistics, data modeling and evaluation, machine learning algorithms and libraries, software engineering

and systems design.

Python, R, Java and JavaScript top the list of popular ML programming languages,

followed by Julia and LISP. Desirable soft skills in machine learning positions include communication, teamwork, time management, a thirst for learning and creative problem-solving.

Product Management

To deal with the challenges brought on by the pandemic, businesses across all sectors are hiring product managers to launch and manage successful tech products, and workforce demand shows no signs of slowing. In fact, some experts estimate that more than 500,000 positions have been created in the last eight years. While the base salary for an entry-level product manager averages \$75,000, experienced pros average \$133,212 per year.

Hot Product Management Skills

Although having a technical background is a plus, currently only 30% of product managers have coding expertise. The other competencies employers look for in a product manager include business acumen,

customer centric mindset, market orientation and soft skills such as persuasion, empathy, delegation and the ability to lead without formal authority.

Software Development

No list of marketable tech skills in the modern era would be complete without software development. With 162,900 projected openings for software developers, quality assurance analysts and testers each year over the next decade, suffice to say that software engineers with a robust skill set will be able to write their own ticket for the near future.

Hot Software Development Skills

The programming languages in the highest demand for software developers in 2023 include JavaScript, Python, Go, Java, Kotlin, PHP, C#, Swift, R, Ruby, C and C++.

Career-minded software developers will also benefit from technical skills in cloud computing, containers and database management.

Systems and Networks

Although the demand for traditional network professionals continues to outpace supply, and jobs are projected to increase 4% to 5% over the next decade, new responsibilities and roles are making their way to the forefront as this field evolves. Learn the following skill sets to capitalize on emerging trends in computer systems and network technologies.

Hot Networking Skills

To compete for the jobs of the future, network professionals will need to be familiar with cloud networking technologies, cloud architecture capabilities, wireless network security and edge computing.

Other hot technical skills beyond traditional network practices include software-defined networking (SDN), secure access service edge (SASE), zero trust network access (ZTNA) and software-defined wide area network (SD-WAN) management.

Like other IT professionals, network practitioners will need exceptional soft skills to cope with the challenges of troubleshooting and maintaining secure networks across a remote workforce. The most valuable soft skills for systems and network pros include communication, active listening, confidence, situational awareness, empathy and patience.

In Summary

Demonstrating an ability and willingness to learn new skills is one of the most crucial qualities managers look for when hiring new IT staffers.

