

# Top IT Skills in Demand in 2022

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IT pros must actively acquire new skills to keep up with evolving technology. These in-demand skills will keep you competitive and functioning well in your IT career, regardless of what the future holds.

## 22 IT Skills to Learn in 2022

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As an IT professional, this is a time for you to level up your tech skill sets by obtaining specific knowledge. If you choose to maintain the status quo, you risk losing relevance in your field. Here are some of the top IT skills in demand this year that you could add to your resume and get you one-step closer to reaching your IT goals:

### 22 IT Skills to Learn in 2022

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|--------------------------------|-----------------------------|-------------------------|
| 1. Programming language skills | 8. Technical support        | 16. Data visualization  |
| 2. User experience             | 9. Linux                    | 17. Data science        |
| 3. Machine learning            | 10. Risk analysis           | 18. Big data            |
| 4. Quality assurance           | 11. Cybersecurity analytics | 19. Professional skills |
| 5. Mobile application skills   | 12. Penetration testing     | 20. Project management  |
| 6. Networking                  | 13. Compliance              | 21. Automation          |
| 7. Cloud computing             | 14. Database administration | 22. Business skills     |
|                                | 15. Data analytics          |                         |

By building these skills, IT pros can add maximum value to any project they contribute to. They may even see increased income as a result of upskilling.

## Quick Facts About These IT Skills

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CompTIA's research team identified the top skills for 2022 based on [Cyberstates](#), which was updated in 2021. We've categorized them by the [IT Framework](#) which divides IT functions into four pillars:

- Development
- Infrastructure
- Security
- Data

This list also contains additional professional skills that can be added below any component. Each component represents different levels of skills you can continue to learn to further any IT goal.

During Q2 2021, there were more than 930,000 core IT job postings in the United States, according to Burning Glass Technologies Labor Insights. See what skills are in demand in the IT industry and discover [your next move](#).

## What Skills Are Most in Demand in the IT Industry?

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Here are 22 popular IT skills that you can seize in 2022 to unlock your potential and advance your IT career.

### Infrastructure

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#### 1. Networking

Nearly everything we do starts with the network, so a well-rounded IT pro knows that it is important to understand the technology behind [computer networking](#).



#### 2. Cloud computing

As remote work has increased, so has the demand for cloud computing. [Cloud computing skills](#) – such as configuration, deployment, [security](#), management and troubleshooting – are essential to IT pros since. This includes everything from end user support for [software as a service \(SaaS\)](#) solutions to analyzing, managing, maintaining and deploying [cloud platforms](#) like Microsoft Azure or Amazon Web Services (AWS).



#### 3. Technical support

There is a reason many IT pros begin their careers in [technical support](#). The troubleshooting and problem-solving [skills honed at the help desk](#) give you a solid foundation that you'll use again and again throughout your career, no matter what specialty you go into.



#### 4. Linux

This year, companies are relying on IT pros to know how to operate Linux successfully. Basic maintenance, installing and configuring workstations, networking and understanding the Linux command line are skills that tech workers should start mastering now.



### Development

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## 5. Programming languages

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To say that understanding programming languages – such as Java, JavaScript, C++ and Python – is an IT skill currently in demand is an understatement. Programming languages touch nearly every IT job role, so IT pros would benefit from strengthening these skills.



## 6. User experience (UX)

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Proper UX design is valuable because it can help to increase productivity, decrease support costs and boost customer retention and acquisition. Each of these benefits is attractive to organizations navigating another challenging year and striving to create a healthier bottom line. IT pros can learn UX design – such as knowledge of researching target markets, visual design skills, coding and project management skills – to establish themselves as experts in the tech industry.



## 7. Machine learning

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There are many skills that fall under the heading of machine learning. IT pros can start with software engineering, systems design, computer science fundamentals and programming. These competencies will help you begin finding patterns in data.



## 8. Quality assurance

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Someone who does quality assurance uses data analytics to identify issues and opportunities in products that are created by a factory or business process. They make sure things are done right, minimizing errors and vulnerabilities.



## 9. Mobile application skills

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Organizations are increasingly turning to mobile app solutions to expand customer reach. Understanding application programming interface (API) development platforms and cross-platform app development frameworks will help IT specialists develop mobile applications and create new digital solutions.



## Cybersecurity

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### 10. Risk analysis

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Risk analysis is the assessment of risks and vulnerabilities that could negatively impact an organization. With more cybercrime than ever before, cybersecurity skills like risk identification, analysis and management help IT pros keep organizations' sensitive data safe.



## 11. Cybersecurity analytics

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At the intersection of cybersecurity and data analytics is cybersecurity analytics. In a cloudy world that doesn't have secure perimeters, there is a critical need to secure data. This includes threat intelligence, intrusion detection and response, risk analysis and data modeling.



## 12. Penetration testing

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Penetration testing is a way of finding vulnerabilities in your systems before a cybercriminal does. While cybersecurity analysis is considered a defensive strategy, penetration testing would be an offensive strategy. Both sides work together to protect the organization in different ways.



## 13. Compliance

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Compliance is defined as the actions or facts of complying to a regulation. It is important to understand the background behind compliance as it is used in many aspects of security and extra cybersecurity tasks.



## Data and Analytics

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### 14. Database administration

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When it comes to configuring and maintaining the database management system or updating database code for upcoming new technology, a database administrator is there to manage all aspects of an organized database environment. Within data administration is a highly used programming language, Structured Query Language (SQL). SQL is the standard programming language for relational databases, and it is important that IT pros know how to structure and manage these databases. Those wanting to move into a database administrator role should make it their mission to learn SQL inside and out.



### 15. Data analytics

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An IT pro that is well-versed in data analytics has the ability to examine data sets and reach conclusions to help their organization get better results. As a top IT skill in demand this year, it is vital that tech specialists learn the art of data analytics. Gaining some of the skills listed

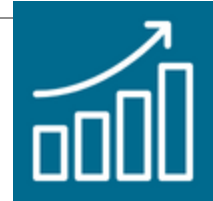
earlier – such as machine learning and programming languages – will strengthen your data analytics skill set.



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## 16. Data visualization

Data sets can be complex and hard to understand. Organizations need people who are able to analyze it and create data visualizations to tell the story of what the data means and why stakeholders should care. Data visualization helps guide decision making across the organization.



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## 17. Data science

Organizations need employees who can interpret raw data and transform it into usable feedback that data analysts can use to guide decision making. Learning to work with a variety of programming languages (SAS, R and Python, for example) can help IT pros do this.



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## 18. Big data

Big data refers to the use of new technology tools to handle data that previously could not be handled with existing tools. IT skills in demand in 2022 that are related to big data include effective problem solving skills, data handling skills and understanding programming languages. By pursuing these competencies and utilizing these tools, you can advance your career.



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## Additional Professional

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### 19. Professional skills

In addition to technical skills, IT pros should bring a variety of professional skills to the table this year. Adaptability, empathy, teamwork, communication and active listening are just as important to employers as technical skills are. With that in mind, building and strengthening your professional skills should be a top priority for IT specialists.



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### 20. Project management

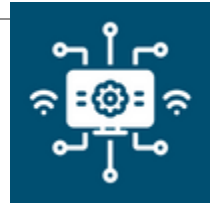
Project management skills can be applied across the board and make you better at your job regardless of the size of projects you're managing. Understanding project management methodologies as well as learning how to manage the project lifecycle and communicate with stakeholders will add efficiency and effectiveness to your work.



## 21. Automation

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Automation boosts efficiency, which is exactly what many companies need; and IT pros can implement it at every level, from the help desk to cybersecurity.



## 22. Business skills

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While professional skills refer to how you behave, business skills are more about what you know. As an IT pro, the more you understand about how your organization functions, what the business priorities and goals are, and what challenges employees and end users are facing, the better you're able to recommend solutions.

