

### 5 tech trends to watch in 2024

Here are five tech spaces that demand our attention in the New Year.

Leading a tech accessories company makes you aware, by necessity, of the many emerging gadgets and growth sectors that spark a serious fear of missing out. Whether it’s on our bodies or transporting them, supplementing human labor or speeding telecommunications, as well as sustaining the planet, here are five areas that demand our attention in the new year:

#### 1. WEARABLES INCLUDING AR, VR, AND MR

A full decade ago came Google Glass, but its adoption was hindered by concerns over privacy, safety, and cost. In 2014, Mark Zuckerberg predicted humanity’s adventures in the metaverse after Facebook acquired VR headset maker Oculus. Although neither of these came to pass, they have paved the way for major advancements in wearable technology, including weight, comfort, resolution, and haptic feedback.



Body technology like smartwatches and health trackers has gone mainstream. Valued at \$70 billion, the global wearable technology market is estimated at \$230 billion by 2032. In the coming year, expect virtual, augmented, and mixed reality hardware to become increasingly integrated into areas from healthcare to law enforcement, in addition to gaming and entertainment. Doctors will be more equipped to monitor patients virtually, while public agencies can better assess the effective training of personnel in real time.

#### 2. AUTOMOTIVE ADVANCEMENTS

Composite materials made of sheet-molded carbon, an

infinitely recyclable material, are beginning to be used for vertical support pillars, roof and underbody panels, and door and side frames. This lightweight solution ensures safety while making vehicles more sustainable, requiring less energy to propel and causing less damage to streets. Solid-state batteries, already used in wearables, pacemakers, and radio-frequency identification devices like trackers, use solid electrolytes instead of liquid. This next-gen energy source offers significant benefits. Potentially safer than lithium-ion technology, it doesn’t pose the risk of explosion or fire; with its higher density, it accommodates more active materials to increase





battery capacity in a smaller size.

Another advancement is vehicle-to-grid (V2G) an intelligent charging system that enables high-capacity car batteries to serve as a backup energy source for the power grid. EV batteries are a cost-efficient form of energy storage. By 2030, there could be close to 250 million EVs globally, and with solar, wind, and other renewables steadily replacing dirty sources in the electrical grid, V2G tech saves cleaner energy watts that can be used by a homeowner or flow back to the grid to prevent outages. In working toward a smarter, more stable, and more flexible grid, automakers like Nissan are currently making V2G-

compatible cars, with others hot on their heels.

### 3. ROBOTICS AND AI

Along with the automotive industry, responsible for nearly 30% of industrial robotics, complex machines are playing a greater role across agriculture and processing, medicine and hospitality. To support lower-cost deployment, software start-ups are entering this market and partnering with original equipment manufacturers to fulfill the specialized needs of small and medium-sized companies. In 2024, I think we will see easy-to-use software and intuitive user experiences that make robotics automation more accessible and equitable for non-technical users.

While increasingly operating in a connected digital ecosystem to optimize performance, conserve energy, and save money, robotics will more fully incorporate the benefits of AI. This is best seen in its ability to manage variability and unpredictability, including for manufacturers and wholesalers dealing with millions of ever-changing products. AI algorithms can also give robots

better physical precision in activities such as vision-based gripping, useful for warehouse settings, and extending into life-saving sectors like surgery and rescue work.

### 4. WIRED TO WIRELESS

Thanks to the \$81 billion C-band spectrum auction in 2021, Verizon, AT&T, T-Mobile, and other mobile carriers have been able to grow their nationwide coverage substantially. This has spurred the deployment of macro networks, as more than 80% of cellular connections begin and end indoors. With landlines being replaced by 5G wireless, converged networking is just now hitting its stride. By consolidating multiple wireless networks indoors, organizations can accelerate data speeds, share resources to improve network efficiency, and reduce costs. This can be optimized to meet diverse needs, from commercial users to first responders. The popularity of the Internet of Things (IoT) has increased demand for wireless charging and a more convenient way to power these networks. One emerging solution is magnetic resonance, where a coil inside a





device resonating at the same frequency as a charger allows high levels of power to be wirelessly transferred, even across a big distance. A resonance charger is portable and efficient, eliminating the need for different chargers and cables, and serving many devices simultaneously. The next evolution of wireless charging seems to be here, as the Wireless Power Consortium just announced that the first Qi2 devices are nearly through the certification process. Qi2 is an open wireless charging standard that promises faster and more seamless wireless charging using a ring of magnets in both the device and the charger to ensure proper coil alignment.

## 5. SUSTAINABLE TECH

From wearable consciousness and vehicle-to-grid capabilities to robotics and wireless efficiencies, there seems to be a common theme throughout these trends: sustainability. Each new generation of technology drives innovators and markets toward more environmentally clean solutions.

The Intergovernmental Panel on

Climate Change (IPCC) has warned that significant reductions in carbon dioxide are necessary to avoid the earth’s temperature rising to unmanageable levels.

In 2024, expect companies to continue working toward goals that help prevent such an existential threat. For example, Google has configured its data centers to use half the energy than average. Apple has pledged carbon neutrality by 2030.

We are always thinking about the little things that can make big things work better. Sustainable practices add up, company by company, accelerating toward a solution that can potentially drive the effects of climate change backward, as leaders embrace the innovation and courage to move us ahead toward a shared future.



## Apply for the Global IT Scholarship Program

Global Information Technology is proud to provide the GIT Scholarship Program. Every month, this scholarship will be awarded to highly driven individuals wanting to begin or advance their IT career. Exclusively, the scholarship will provide a grant of \$2,500.00 towards any certification course or remote live training at GIT. GIT created this opportunity to give back to the community and spread our desire to help those in need. We believe that learning is essential and we will continue to help and develop individuals to help them succeed in their personal development goals. Apply here:

<https://www.global-itech.com/the-global-it-scholarship/>





### Career Guide

#### Quick and to the point Career Advice

**Question:** “Andrei, I’m thinking of switching my IT career focus from engineering to AI. It seems like there is more of a future there, which I’m appreciating the guarantees. Any thoughts on this matter?”

– Jason Stevenson

**Answer:** Hello Jason. First off, it’s difficult to predict with certainty what the most in-demand tech jobs will be for 2024. Demand for specific skills can change rapidly in the technology industry, and new positions are created on a dime to match the continuous innovation of the 21st century. Still, we can make some highly educated inferences based on today’s technology, as well as the latest data from the Bureau of Labor Statistics (BLS) and other trusted sources.

With the rapid adoption of AI and machine learning in everything from e-commerce to customer service, businesses need AI engineers to implement

the AI systems created by AI developers at scale. AI and machine learning (ML) are a winning combination, and the accelerated demand has created an explosion of opportunities.

Since it is a relatively new field, there is a talent gap between demand and supply. Job seekers with the right skills position themselves for a lucrative career with plenty of potential employers. According to salary.com, AI engineers can expect a base salary of between \$96,840 to \$132,096 a year. Since AI and ML are relatively new technologies that evolve almost weekly, AI developers and engineers must be committed to lifelong learning. The AI engineers of today will play a crucial role in defining the technologies of tomorrow.

I don’t think you can go wrong here by making the change. I hope this helps.

– Andrei

#### GIT thought Provoking corner



“The I hope you realize that every day is a fresh start for you. That every sunrise is a new chapter in your life waiting to be written.”

— Juansen Dizon, poet

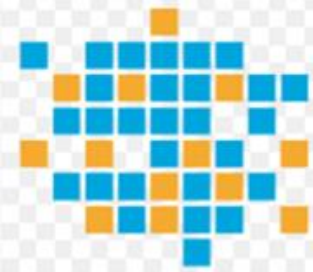
#### Fun and interesting facts about technology.

##### Did you know .....

Motorola released the world’s first mobile phone, the DynaTAC 8000x, in 1983. This portable phone cost \$3,995 upon release and offered 30 minutes of talk time. Charging the device required 10 hours, and it could only store 30 phone numbers in memory. Unsurprisingly, few people purchased the device, but it marked a major breakthrough in mobile technology. Nowadays, cell phones and smartphones are an indispensable gadget in peoples’ lives.







# GLOBAL IT

## Get Trained. Get Placed.



JobPrep – January 2024

“The Voice of Technology Career Insight”

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

Global Information Technology (Global IT) is approved by the Department of Veteran Affairs to receive Veterans benefits. We accept Chapter 33 Post 9/11 GI Bill®, Chapter 30 Montgomery GI Bill® for Active Duty, Ch 31 Vocational Rehabilitation and Employment (VR&E), and VRRAP. Whether you are serving or have already served, Global Information Technology is here to work with you to start your IT career. These benefits may cover up to 100% of tuition and fees and housing allowance, courseware, and other training related costs as well.

The Department of Veterans Affairs (VA) is accepting new training program enrollments for veterans wishing to use their GI Bill benefits. These training programs help veterans get the technology skills they need to join some of the fastest-growing industries in the United States. Global Information Technology (Global IT) is approved by the Department of Veteran Affairs to receive benefits under the GI

Bill - Chapter 31 and Post-911 programs. Participating veterans will receive high-tech training, tuition, and housing allowance assistance).

For more information about your specific benefits in regards to your service, call 248-557-2480 to set up an appointment with one of our School Certified Officers (SCO) (career advisors) or complete the inquiry form at <https://www.globalitech.com/va-p>



DETROIT, Michigan

Jobs in the Detroit area ...  
One click away

SimplyHired.

indeed

LinkedIn

glassdoor®

Dice®  
The Career Hub for Tech Insiders™





### GIT January 2024 Career Services Workshops –

*A special message from Jennifer Bowden, GITs Career Services Manager*

Hello, Global IT friends! First, I wish you a restful holiday season filled with love, peace, and happiness. Please see GIT’s online calendar for January 2024 for information about our upcoming workshops, including:

- 1/4 @ 12pm** – Planning Your Job Search
- 1/12 @ 4pm** – Resume Writing
- 1/25 @ 4pm** – Building Your LinkedIn Profile

We’ll also offer sessions on PowerPoint, JavaScript, and more. The full calendar is available at <https://www.global-itech.com/free-seminars/>.

Feel free to reach out to me via email at [jennifer.bowden@global-itech.com](mailto:jennifer.bowden@global-itech.com)

Take care, and happy holidays!

### 3 examples of professional development goals

Here are ten examples of professional development goals to inspire your own:

**1. Develop a new skill set.**  
Growing professionally often means expanding the arsenal of things you’re able to do. What skill you choose to develop can depend on your industry, job, and personal preferences. In-demand skills across the job sector in 2022 included cloud computing, data analysis skills like artificial intelligence and SQL, management, and UX design. Develop skills by taking online or in-person courses, shadowing a coworker, or going back to school, among other ways. Think about what fits your schedule and the level of expertise you’re aiming for to see what works best for you.

**2. Develop your workplace skills.**  
Workplace skills are the tools and practices that help people in a workplace connect and interact smoothly with one another. Sometimes referred to as human or soft skills,

workplace skills can be crucial for advancing to higher-level positions. Workplace skills include verbal and nonverbal communication, empathy, self-awareness, and leadership. Specific goals might include:

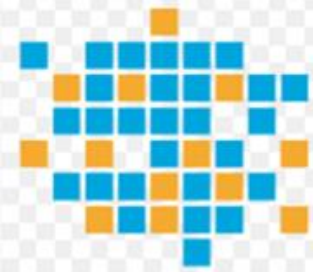
- Complete an online course on communication, negotiation, or psychology
- Join a social public speaking club, such as a local Toastmasters chapter

### 3. Take up leadership responsibilities.

Actively seeking out leadership opportunities will allow you to develop leadership skills, and show others that you are striving to grow. Approach your manager to see how you might be able to put your leadership skills into practice. Have a few suggestions at the ready. Here are some examples to get your started:

- Lead two team meetings this quarter
- Plan and lead a team initiative to collectively learn a new tool or skill
- Plan the next team offsite or activity





## GIT’s top 3 tech certifications for 2024

As an IT training school deeply entrenched in the tech industry, GIT has witnessed firsthand the transformative power of certifications. In this article, GIT will guide you through the jungle of tech certifications, providing insights into our top 3 certifications to consider for 2024.

### The Value of Tech Certifications

Tech certifications are more than just pieces of paper; they represent a commitment to continuous learning and professional growth. They signal to employers that you possess the skills and expertise needed to excel in a rapidly evolving industry. But with a multitude of certifications available, where should you start? Let’s dive into some of the top tech certifications that are making waves in 2024.

#### 1. AWS Certified Solutions Architect — Associate

For those aspiring to follow a career path similar to mine, the AWS Certified Solutions Architect Associate certification is an excellent starting point. This certification equips you

with the skills to design distributed systems on the AWS platform, a critical skill in today’s cloud-centric world.

- Average Salary: According to Payscale, AWS Certified Solutions Architects in the United States earn an average salary of \$130,000 per year.
- Certification Popularity: The AWS Certified Solutions Architect — Associate certification is one of the most popular AWS certifications, with thousands of professionals obtaining it each year.

#### 2. Certified Information Systems Security Professional (CISSP)

In a world increasingly concerned with cybersecurity, the CISSP certification is a must-have for professionals seeking to protect digital assets and information. It covers a wide range of security topics, making you a valuable asset in any organization.

- Average Salary: CISSP-certified professionals earn an average annual salary of over \$140,000 in the United States, making it one of the

highest-paying certifications in cybersecurity.

- Global Reach: CISSP is recognized globally, with certified professionals in over 160 countries.

#### 3. Google Cloud Professional Cloud Architect

With Google Cloud gaining traction, the Professional Cloud Architect certification is in high demand.

This certification validates your ability to design, develop, and manage Google Cloud solutions, making you an indispensable resource for organizations embracing the cloud.

- Certification Demand: The demand for Google Cloud Professional Cloud Architects has been steadily increasing, with a 2020 LinkedIn report naming it among the top emerging jobs.
- Job Opportunities: Google Cloud is expanding rapidly, and certified professionals are sought after by organizations adopting Google Cloud services.