

## Best Careers for the Future: 51 Jobs for 2020 and Way Beyond!



What are the best careers for the future? How will everything change? Is it possible to prepare for the jobs of tomorrow—today? Many of us would love to have definitive answers for these questions. But, of course, nobody can say for sure what the future holds. The best we can do is make educated guesses based on past and current trends. Still, even educated guesses can help us imagine some pretty astonishing possibilities.

Here's one thing we know: Change will keep happening. America and the rest of the world will experience social, cultural, economic, environmental, and technological changes. Some of these changes can be foreseen (such as the likely impact of climate change). But many of them can't be predicted. New challenges may arise without any warning. And "happy accidents" may lead to positive new discoveries that solve long-standing problems.

So predicting the best jobs for the future requires understanding that all kinds of variables will interact in complex and surprising ways. Many of tomorrow's jobs will likely result from today's scientific and technological advances. But most jobs of the future probably don't exist yet, and a lot of them haven't even been imagined. In fact, according to one estimate, almost two-thirds of today's kindergarten students will eventually have occupations that don't currently exist.<sup>1</sup>

Of course, many of today's occupations will continue to be part of the future, but they'll undergo changes just like everything else. And many occupations will transform into something entirely new—or disappear altogether. It's a lot to think about, let alone visualize. After all, many of us have a natural resistance to change and uncertainty. We might feel a little too safe or comfortable with the status quo.

That's why it can pay to explore and imagine career possibilities like the 51 listed below. They can reveal new paths forward or suggest ways that you may want to adapt in order to prepare for the future's most interesting or plausible scenarios. Many occupational categories are already changing and overlapping with one another, which is a process that may accelerate. But don't let that overwhelm you. This article will show you several good career options to start considering.

Check out the best careers that you can get today as well as the ones that are more futuristic:

- [Jobs that already exist](#)
- [Jobs that don't exist quite yet \(but probably will\)](#)

Wondering what will drive the demand for a lot of jobs? Some of the best careers of the future are likely to be good options because of:

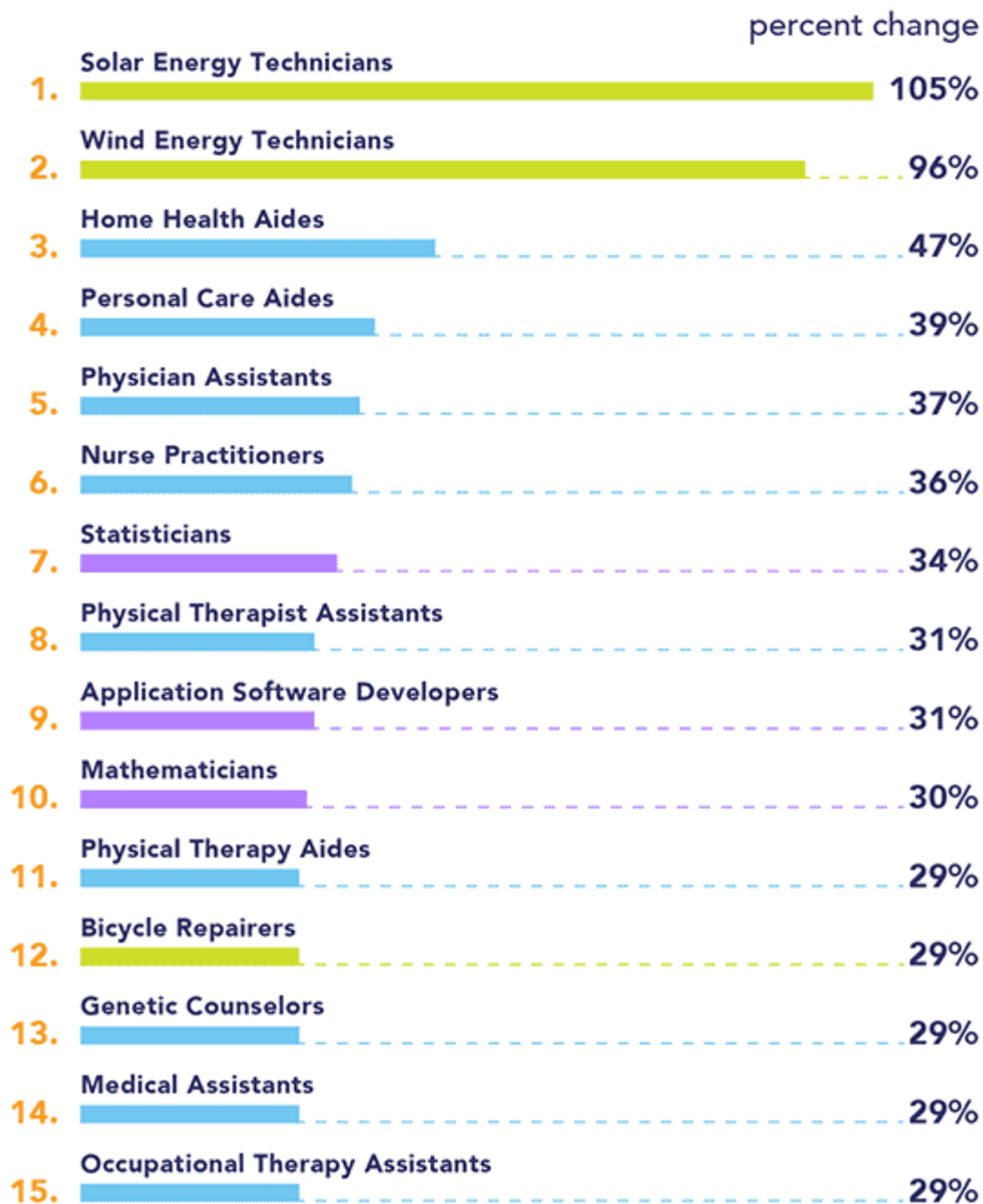
- [Biomedical advancements and ever-smarter machines](#)
- [Cultural, demographic, and economic changes](#)
- [Global challenges and crises](#)
- [The human drive to play and explore](#)

### Jobs That Already Exist

Many kinds of tradespeople and professionals are in high demand today and will probably continue to have great opportunities over the next few decades. Other kinds of workers are doing jobs on the leading edge of technology and cultural change. For them, opportunities aren't widespread, but they could be very soon. The following examples represent several existing jobs that may be top careers for the future.

# 15

## Fastest-Growing Occupations From 2016 to 2026



Source: U.S. Bureau of Labor Statistics, Employment Projections, 2016–2026.

Like wind energy, solar power will continue to be a major part of humanity's transition toward a clean-energy future. The cost of solar energy keeps dropping year after year, so it's becoming much more affordable for businesses and homeowners. In cities all around the world, solar energy technicians are enjoying stable employment in a growing industry that makes a positive difference. In the U.S., about 30,000 solar technician jobs may become available over the decade from 2016 to 2026. Median yearly pay for this occupation was \$42,680 in 2018.<sup>3</sup>

## **2. Wind Energy Technician**

With climate change threatening to severely damage the world as we know it, it will become more important to move to clean energy sources. Reducing carbon and methane emissions means transitioning away from fossil fuel sources like oil, coal, and natural gas. That means wind energy will likely be a big part of the future. It's already an industry that's grown a lot. And it will likely grow a lot more, meaning that skilled technicians will be needed to help with the installation, maintenance, and repair of giant wind turbines. About 14,000 job openings could be generated for wind energy technicians over the decade that ends in 2026. The median salary in this field was \$54,370 in 2018.<sup>3</sup>

## **3. Nurse Practitioner**

Because of an aging and longer-living population, the health care system may have trouble keeping up with the growing influx of patients. Many regions could experience severe shortages of doctors. They'll need more non-physician health professionals with the ability to diagnose and treat patients with various acute and chronic conditions. Registered nurses who get the right kind of advanced education at the graduate level can become nurse practitioners and help fill that void. In 2018, median yearly pay for nurse practitioners was \$107,030. And between 2016 and 2026, they could benefit from about 144,000 job openings.<sup>3</sup>

## **4. Software Developer**

Computers, robots, and mobile devices are useless without the well-engineered software that gives life to the sophisticated hardware it runs on. As the Internet grows and machines get smarter and more connected to us and to each other, the need for talented software developers will expand. Mobile app development, especially, is considered one of the best careers for 2020 and beyond. In fact, almost 1.2 million total job openings are projected to become available in the software development field between 2016 and 2026. The median yearly pay for application software developers in 2018 was \$103,620.<sup>3</sup>

## **5. Physical Therapist**

With more seniors in our communities, the need for physical therapy professionals will increase. Many seniors end up requiring some form of physical rehabilitation, pain management, mobility assistance, or therapeutic treatment as they age. From 2016 to 2026, about 177,000 jobs may become available for physical therapists. An additional 147,000 jobs could open up for physical therapist assistants. In 2018, the median salary for physical therapists was \$87,930.<sup>3</sup>

## **6. Registered Nurse (RN)**

In total, more than two million jobs are expected to become available for RNs between 2016 and 2026.<sup>3</sup> That number shouldn't be surprising given how quickly the senior population is growing in most regions. In all likelihood, RNs will continue to be in high demand for decades to come, even if their roles change a little because of technological advances and medical breakthroughs. The median salary for RNs in 2018 was \$71,730.<sup>3</sup>

## **7. Health Services Manager**

The health care sector may undergo more changes over the coming decades than most other industries. Every health and medical organization will need highly knowledgeable leaders and managers to help them adapt to legal, regulatory, and technological changes while still improving the quality and efficiency of the services they deliver. Health and medical services managers earned median yearly pay of \$99,730 in 2018. And about 367,000 job openings may become available in this field over the decade that ends in 2026.<sup>3</sup>

## **8. Data Analyst**

Thanks to computing advances and a cultural shift toward more tracking and measuring, the amount of data that gets collected every year grows by an astonishing amount. Organizations of every type now have the ability to gather so much detailed information that it's becoming more and more difficult for a lot of them to figure out what it all means. They need professionals who can not only collect the data they need, but also spot patterns, identify past and current trends, and forecast future probabilities. The median salary for data analysts is \$58,987.<sup>5</sup>

## **9. Digital Content Specialist**

One of the major cultural revolutions that keeps getting more entrenched is the move toward more dynamic, digital, interactive, and on-demand media. Because of digital devices that keep us constantly connected to almost any kind of information or entertainment we want to consume, the need for fresh content that breaks through the noise is never-ending. Organizations in every industry are discovering that generating new digital content is becoming a major key to sustaining their effectiveness. That's why digital content specialists—with all kinds of different job titles and abilities—are increasingly in high demand, especially with the growing popularity of remote work and freelance gigs. To prepare for this type of position, it's smart to get training in areas like Internet marketing, writing, and multimedia and digital arts.

## **10. Information Security Analyst**

As our modern way of life gets more intertwined with computers and dependent on information technology (IT), we all become more vulnerable to cyberattacks. So far, we've been lucky that criminal hackers haven't shut down critical infrastructure on a very large scale or for an extended period of time. But that day is probably coming unless we have enough computer security specialists to help the government and essential organizations protect their networks and IT systems. Cybersecurity is a world-wide issue, and the bad guys keep getting more sophisticated in their attacks. From 2016 to 2026, about 104,000 jobs are expected to open up for information security analysts. In 2018, they earned median yearly pay of \$98,350.<sup>3</sup>

## 11. Computer Systems Analyst

The reasons for getting an education in computer science will probably continue to multiply as information technology grows more complex and intertwined with everything in our lives. That growing complexity is why more and more organizations will likely need systems analysts going forward. Companies will need help choosing and implementing the best hardware and software, including (potentially) robots and artificially intelligent machines. From 2016 to 2026, computer systems analysts could benefit from 449,000 job openings. In 2018, the median salary in this field was \$88,740.<sup>3</sup>

## 12. Biomedical Engineer

Professionals in this field are already starting to revolutionize the health care industry. In fact, biomedical engineering is probably one of the best careers to get into if you want your work to have a positive impact in the years ahead. After all, biomedical engineers are involved in all kinds of cutting-edge research and development. For example, many of them get to design things like sophisticated medical devices, artificial organs, bionic body parts, and biological implants. About 16,000 jobs are expected to become available in this field over the decade from 2016 to 2026. Biomedical engineers enjoyed a median salary of \$88,550 in 2018.<sup>3</sup>

## 13. Mechanical Engineering Specialist

Do you want to help develop some of the most exciting emerging technologies? Increasingly, mechanical engineers and mechanical engineering technicians are involved in the design and testing of things like advanced robots, automation equipment, 3D-printing machines, and clean energy devices. It's projected that, between 2016 and 2026, about 212,000 jobs could open up for engineers in this field and roughly 42,000 jobs could open up for technicians. In 2018, mechanical engineers earned median yearly pay of \$87,370. The technicians who helped them made \$56,250.<sup>3</sup>

## 14. Electronics Engineering Specialist

Like mechanical engineering pros, a lot of people in this field get to help design, test, and evaluate leading-edge technologies. As electronic circuitry and other components get smaller, more complex, and more powerful, it's up to these professionals to figure out how to take advantage of the latest technological advances. They may help develop things like better computers, automated machinery, handheld medical devices, and navigation and communications equipment. Going forward, some of them may even get to work on things like self-driving cars. From 2016 to 2026, job openings are expected to total 51,000 for computer hardware engineers, 92,000 for other electronics engineers, and 120,000 for electronics engineering technicians. In 2018, median salaries were \$114,600 for computer hardware engineers, \$102,700 for other electronics engineers, and \$64,330 for technicians.<sup>3</sup>

## 15. Digital Rehab Counselor

Do you ever feel overwhelmed by the incredible amount of digital information you consume in a day? Many people do. As more and more of our lives revolve around social media and other online activities, there's a growing awareness that a lot of us are actually addicted to the technology we use. So one of the top jobs of the future may involve helping people "detox" from their over-consumption of digital inputs. People with counseling training will likely be the best-equipped to pursue this type of job.

## 16. Blockchain Developer

You've probably heard of the digital cryptocurrency called Bitcoin. But how much do you know about the underlying technology that makes it possible? Blockchain technology works as a distributed cryptographic ledger that can make economic and other types of transactions decentralized, faster, and more private. It's all a bit hard to understand, but many experts believe that blockchain technology will eventually be just as world-changing as the Internet. That's why professionals who understand how to develop practical services and products with blockchain technology will probably be in high demand well into the future.

## 17. Civil or Commercial Drone Pilot or Dispatcher

The government is figuring out the best way to regulate the use of drones. After all, people continue to dream up new ways to take advantage of their remote flight capabilities. Instead of drones mostly being used for military or recreational purposes, they are increasingly used for all kinds of civil and commercial applications. For example, companies like Amazon envision drones delivering packages. But they could also be used for things like removing waste from city streets, monitoring air pollution levels, and performing routine tasks in high places that are dangerous or hard to reach. So some companies and public agencies are beginning to put together teams of drone pilots and dispatchers to manage their fleets of small remote-controlled aircraft.

## 18. Smart-Building Technician

With each passing year, more homes, offices, and factories are taking advantage of automation technology to control various building systems such as lighting, heating, air conditioning, and security. Everyday appliances like refrigerators are also becoming part of the growing Internet of Things. In the future, smart buildings may dominate entire cities as people embrace the freedom and convenience of

automated control and hyper-connected systems. But we still need qualified people to install, maintain, and repair those systems. So tradespeople such as [HVAC technicians](#) are starting to become smart-building technicians.

## 19. 3D-Printing Technician

Many futurists believe that we've only just begun to scratch the surface of what 3D-printing technology (aka additive manufacturing) will ultimately be capable of achieving. Hobbyists, industrial designers, biomedical engineers, and other people are already experimenting with on-demand manufacturing of things like tools, food, clothing, everyday household objects, medical implants, and aviation, automotive, and electronics components. As this technology advances, 3D-printing machines may become just as commonplace as refrigerators and microwaves. Eventually, every home and business could have one. And small, localized 3D-printing manufacturers in every town may ultimately replace large remote factories. So technicians who specialize in maintaining 3D-printing equipment will likely be in growing demand.

## 20. Augmented Reality Developer

Is the real world too boring? Does it need some visual enhancements that provide extra information or entertainment value? Some people think so. That's why they're developing ways to superimpose digital images and information onto a person's normal perception of the world using special glasses, bionic contact lenses, or other technologies. Augmented reality could eventually have a major impact on everyone's personal and professional lives since it will probably touch every industry, event, and public space. So augmented reality developers are needed to intelligently design and plan the safe and effective use of this technology.

## 21. Personal Privacy Advisor

As technology evolves and touches more and more aspects of our lives, it's getting harder and harder to maintain our privacy. It's a challenge that will only get more complex as facial recognition and augmented reality technologies become widely adopted. Soon, you may not be able to go out into public without everyone else automatically learning your identity, age, marital status, place of employment, and criminal record (if you have one). So professionals who specialize in helping people protect their privacy—without losing out on some of the main benefits of social media or other technologies—will likely find themselves in demand.

## 22. Personal Brand Advisor

Even among large, established organizations, hiring freelance professionals for short-term projects is becoming a pretty big trend that may expand well into the future. In fact, many futurists foresee a time when most jobs will be done on a temporary contract basis. If that holds true, workers will need to develop great personal brands and put a lot of effort into constant self-promotion. Personal brand advisors will help their clients establish and maintain public personas and professional reputations that make them stand apart from the competition.

## 23. Robotics Service Technician

In the decades to come, almost every home could have sophisticated robots that assist with routine housework such as laundry, cooking, cleaning, and lawn maintenance. But those robots probably won't always work as they should. So skilled technicians may be needed to repair or reprogram the robots that get hacked, go haywire, or cease to function. In fact, robot technicians may eventually become just as commonplace as [plumbers](#), [electricians](#), [auto mechanics](#), and other types of [skilled tradespeople](#).

## 24. Remote Health Care Engineer

As robotics and communications technologies get more advanced, it's becoming possible for doctors and other health care specialists to consult with patients without being physically present. Technology is even being developed and perfected to allow surgeons to perform remote operations with the assistance of robots. In the future, many more remote health care engineers will develop and coordinate the use of advanced technology that allows patients to get diagnosed and treated by almost any medical specialist in the world, regardless of where he or she is physically located.

## 25. Urban Agriculture Specialist

Here's a startling fact: Each year, the urban population on Earth grows by the equivalent of about seven Chicago-sized cities.<sup>6</sup> That means, from 2010 to 2050, the global population of city dwellers will double, reaching about 5.2 billion people.<sup>1</sup> In addition, many of today's industrial farming practices are damaging the natural environment. So in order for cities to be sustainable, they'll need to grow their own food using sophisticated hydroponics and vertical farming methods. Demand for professional urban farmers will likely grow as more cities and urban dwellers realize that their survival depends on growing food locally.

## 26. Nanotech Engineer

By manipulating matter at the level of atoms or molecules, it has become possible to imagine and develop a wide range of new innovations. For example, many people in this field envision a future in which self-replicating nanostructures are used in construction and nano-robots are put into the human body to assist the immune system and cure diseases. Nanoscale technologies are already being used to create advanced materials, and they're being incorporated into some electronics and consumer products (like clothing). As this technology matures, nanotech engineers will need to ensure that their creations don't pose a risk to the environment or human health.

## 27. Biomech Technician

Bionic limbs continue to get more sophisticated. It's possible that, one day, even people without any disabilities will want biomechanical add-ons in order to enjoy super-human capabilities. But the technology will probably be so complex that only people with specialized skill sets will be able to repair it, upgrade it, or tune it up.

## 28. Genetic Engineer

The idea of custom-designed and made-to-order babies may make a lot of us feel squeamish right now, but people's attitudes could change as genetic engineering matures and more companies begin to commercialize the resulting technology. Besides, advances in this field may also lead to cures for some of our most challenging diseases as well as treatments that slow or even stop the aging process. It will be up to governments to decide how to regulate an industry that will benefit from a lot of pent-up demand.

## 29. Tech Ethicist

Humanity still hasn't fully learned that we shouldn't do something just because we can. Ethicists have the job of trying to help us avoid learning that lesson the hard way. They help us examine hard-to-answer questions in relation to new technologies and their potential consequences. For example, should we allow the creation of "designer babies?" Who has parental rights when a human is conceived, grown, and born in a laboratory, outside of a mother's womb? Should we grant artificially intelligent robots the same rights we have? How much information are we entitled to know about other people? The questions are almost limitless given how quickly technology is changing our world.

## 30. Virtual Reality Designer

Most people like to travel and explore places they've never been. However, you don't necessarily have to physically travel anywhere in order to see and experience new places. Whole virtual worlds are being created, and the supporting technology will increasingly allow you to interact with it using all of your senses. A lot of VR users might even form deep relationships with other people's virtual avatars while having adventures that they would never experience in the real world. As this technology matures, what's real and what's fantasy will start to blur together. Talented VR designers may become highly sought-after as VR developers race to fill a growing demand for more sophisticated, realistic, and imaginative virtual experiences.

## 31. Problem-Solving Competition Director

Some people believe that solutions to humanity's biggest problems can be discovered by creating competitions with large monetary prizes for the winners. By incentivizing intense research and development, new teams of smart and creative people are formed that might not otherwise exist. XPRIZE is probably the most famous example of this type of incentivized competition. The XPRIZE Foundation runs competitions related to challenges like adult literacy, safer communities, space exploration, global education, artificial intelligence, access to fresh water, ocean exploration, and dealing with carbon emissions.<sup>7</sup> Competitions of this nature may multiply at a faster rate, which will require professionals who can produce and manage them.

## 32. Synthetic Biology Engineer

Did you know that scientists in this field are already creating lab-grown meat that doesn't require any farm animals to be raised or killed? That is just the tip of the iceberg when it comes to the staggering possibilities offered by synthetic biology. With their knowledge of molecular biology, physics, chemistry, and engineering, people in this occupation may eventually create all kinds of artificial organisms or redesign existing natural ones to deliver medical and industrial breakthroughs that nobody has imagined yet.

## 33. Project-Based Human Resources Director

With more companies moving toward project-based employment models, it's likely that specialized human resources professionals will increasingly be needed for choosing and coordinating the best freelance workers for individual projects. In fact, organizations may hire project directors the same way movie studios hire film directors. A project director would be responsible for selecting his or her own team for a particular assignment from among all available freelance talent. Along with skills in human resources, this type of professional may also need a deep understanding of project management.

## 34. Weather Control Engineer

Climate change is already being linked to many droughts, floods, and various severe and unexpected weather events. But as climate science advances, it may become possible to safely and effectively manipulate the weather in predictable ways. Geoengineering is already happening at smaller scales. It might not be able to reverse all the effects of global warming, but it could give us the tools to ensure that certain regions aren't completely devastated by it. If the science advances that far, then some of the top jobs for the future will probably be related to controlling the weather.

## Jobs That Don't Exist Quite Yet (But Probably Will)

Do you enjoy looking even further ahead? The world is changing quickly. Every day, new possibilities arise. So it's a good idea to know what the more futuristic job options might be. Some of the most promising careers for the future may include occupations like the following examples.

## 35. Organizational Disrupter

As established companies and other organizations expand, they often lose some of their ability to innovate. That makes them vulnerable to competition from more nimble startups that frequently aren't so set in their ways. Since many futurists foresee a coming trend toward smaller, more adaptable organizations, a lot of large companies and non-profits may want to figure out how to make themselves more like their smaller competitors. The role of a disrupter would be to introduce a few seemingly chaotic changes in an organization that promote more creativity, risk-taking, collaboration, and innovation.

### 36. Personal Education Guide

Going to school is still an effective way to learn and get recognized credentials. But as we move farther into the future, it's possible that education will become much more personalized and even more convenient than today's online programs. Personal education guides may act as coaches and counselors in helping people choose on-demand courses or designing customized training plans that utilize freelance instructors. And they may provide confirmation that their clients have successfully completed those courses and earned alternative credentials that more and more employers will recognize as being valid.

### 37. Custom Body Part Manufacturer

At some point, waiting lists for organ transplants will probably become a thing of the past. Soon, doctors may be able to order up custom organs that are grown or 3D-printed using their patients' own cells. After all, scientists have already had some success at creating hearts, kidneys, and livers in their labs. They've even grown skin, ears, and other external body parts.

### 38. Brain Implant Specialist

The human brain is incredibly complex, but mankind's understanding of how it works is growing faster than most of us probably realize. As we combine the rapid advances in neuroscience with the amazing advances in computer technology, we'll end up with some truly amazing possibilities. Special computer chips may one day be implanted into people's brains for benefits such as virtual telepathy, memory enhancements, disease management, mood regulation, paralysis treatments, and much more.

### 39. Personal Microbiome Manager

When it comes to what you can do with a biology degree, this job probably isn't an option quite yet, but it could become a good one in the decades ahead. As scientists learn more about the many kinds of bacteria that live inside us and on our skin, they're discovering that these microorganisms may play essential roles in our health and well-being. In fact, having the right balance of bacteria might be crucial for things like preventing obesity, heart disease, chronic fatigue, and mental health problems. So specialists who know how to manage our personal microbiota may become just as important as today's physicians.

### 40. Pharmaceutical Artisan

The pharmacy careers of today will probably be around for a long time. But as 3D printing grows more widespread, it may become possible to quickly produce customized medications for people on an on-demand basis (rather than giving out mass-produced meds). Artisanal drugs could be developed based on a person's unique genetics, habits, and medical history. Some pharmaceutical artisans may even create targeted treatments based on a person's own stem cells.

### 41. Urban Security Coordinator

In a fast-changing world with more densely populated cities, keeping people safe from one another may become increasingly challenging. Criminal justice and law enforcement professionals will have to adapt and find ways to take advantage of new technologies without infringing on people's rights. That could lead to new positions for security pros with specialized skills in coordinating human workers and robots, artificial intelligence, and other advanced technologies within urban environments.

### 42. End-of-Life Manager or Memorializer

With our culture and economy increasingly focused on the personal brands of individuals, it's possible that many people, well in advance of their deaths, will want to plan elaborate memorial services and celebrations that are more extravagant than the kind offered by most funeral directors today. In addition, laws may change to give more people the choice to end their lives through voluntary euthanasia, something that itself could become a specially planned event on the scale of a wedding. That might sound macabre or morally questionable right now, but it could become a big part of the event planning industry in the future. If so, professionals will be needed who can help coordinate major end-of-life celebrations and craft engaging tributes about dying individuals' lives and legacies.

### 43. Hyper-Intelligent Transportation Engineer

We're quickly moving toward a future in which humans will no longer be the operators of transport vehicles. Self-driving cars are probably only the beginning. With more intelligent machines and several advanced technologies already in place or being developed, a future of fully automated transportation networks may become reality. A new paradigm of smart roads, vacuum-tube tunnels, maglev trains, and many other advanced transportation systems could replace our current one.

### 44. Cyborg Designer

By combining the best aspects of a natural organism with those of an advanced robot, it may be possible to create a new entity that is superior to the sum of its parts. So, in the future, highly creative cyborg designers might be in demand as humans try to merge themselves with machines in order to transcend their natural limitations. Other non-human cybernetic organisms may also be developed for use in health care, entertainment, sports, space exploration, and many other industries.

## 45. Robotic or Holographic Avatar Designer

With people spending more of their time in virtual worlds, they might come to be a little disappointed with the real world. They might want to interact with their virtual friends or significant others without having to wear their VR gear. Thus, technology may eventually allow those virtual friends to emerge as real-life avatars in robotic bodies or 3D holograms. In the real world, they could become nearly as common as flesh-and-blood people. But they will take many different forms, including animals and strange alien-like creatures. Special designers will be needed to help create custom avatars that are just as appealing or imaginative in the real world as they are in the virtual ones they inhabit.

## 46. Space Tourism Guide

Companies like SpaceX and Virgin Galactic already have plans well underway to commercialize space travel for the public. In the relatively near future, space tourists may be going into orbit for family holidays, a little adventure, or even to conduct business. If bases are established on the moon, they may be going there too. Of course, most of us aren't astronauts. That's why special guides will be needed to help people prepare for space travel and get adjusted to the new environment once they're in orbit.

## 47. Space Nurse or Physician

Going into outer space presents all kinds of distinct medical challenges. The human body simply isn't designed for a zero-gravity environment. And it will probably be a long time until we have the practical technology to create artificial gravity. So space tourists will need to be monitored and, in some cases, treated for conditions such as muscle wasting or exposure to space radiation. Specialized doctors and nurses will likely be needed for extended stays in space in order to look after the many ordinary people who will take trips beyond Earth's atmosphere.

## 48. Landfill Worm Operator

Earth doesn't have an endless supply of natural resources. The rapid industrialization of the world is beginning to cause shortages of some mined resources. Over the past several decades, a lot of the resources that have been extracted from the earth have ultimately been buried again—in landfills. Many of the products we've thrown away contain valuable elements that industries need in order to manufacture new products and keep functioning. So solutions will need to be developed to extract those elements from the world's many landfills. Some futurists envision a future in which robotic earthworms, partially operated by humans, mine landfills and extract the valuable resources while filling in the resulting voids with good-quality soil.

## 49. Extinct Species Revivalist

Human actions continue to cause the extinction of various plants, animals, and microorganisms. In many cases, we don't realize how important those species are to the health of the world's ecosystems until they're gone. As zoologists and other scientists learn more about the widespread ecological impacts of extinctions, it's becoming clear that many species play critical roles in supporting the environments that humans rely on. So conserving threatened species is often essential. But science may also advance to the point that we can actually bring back some of the species that have already gone extinct and reintegrate them into their natural environments.

## 50. Android Relationship Counselor

We're still a long way off from being able to date robots that have human intelligence. But some scientists believe that artificial intelligence will eventually advance enough to make that possible. If it happens, the social ramifications could be enormous. The people who decide to pursue romantic relationships with artificially intelligent robots will likely need plenty of expert advice in order to navigate complex cultural expectations and steer clear of potential dangers. That will be especially true if we ever reach the Singularity—the theoretical point in the future when autonomous machines become more intelligent than humans.

## 51. Mind-Transfer Specialist

Yeah, this occupation sounds far-fetched. But some experts think it could become a reality. Before the end of this century, it may be possible to upload a human mind to a computer and store it for later transfer back into the same or different human brain. Some people might even have their minds transferred into clones of themselves, synthetic organisms with artificial brains, or special cybernetic robots designed to extend their consciousness.