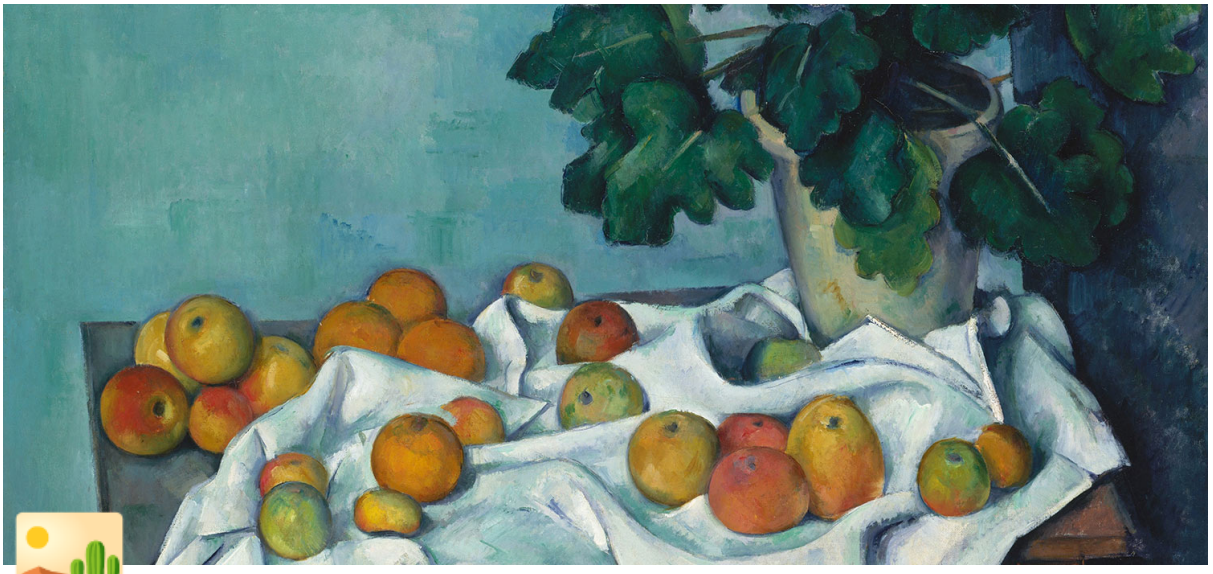

IBM FUTURE IN AI (MOD2)

Job roles

The AI job market has been growing at a phenomenal rate for some time. Here are some job roles to consider if you want to work with artificial intelligence technology. In each description, you'll find information about what people do and the skills they use to do it.

> **Machine learning engineer**
>
> Machine learning engineers are at the intersection of software engineering and data science. They use big data tools and programming frameworks to create production-ready and scalable data science models that can handle terabytes of real-time data.
>
> Machine learning engineer jobs are best for anyone with a background that combines data science, applied research, and software engineering. You can thrive if you have strong mathematical skills, experience in machine learning, deep learning, neural networks, and cloud applications, and

programming skills in Java, Python, and Scala. It also helps to be well-versed in an integrated development environment (IDE), like IBM Watson Studio.

Source: 10 Awesome & High-Paying AI Careers to Pursue in 2022, Springboard, by Sakshi Gupta, 2022

Data scientist

Data scientists use machine learning and predictive analytics to gain insights from large amounts of data. To prepare, you should build your expertise in big data platforms and tools, perhaps including Hadoop, Pig, Hive, Spark, and MapReduce. It would be helpful if you are fluent in at least two programming languages, including structured query language (SQL), Python, Scala, and Perl. You should also invest some time learning descriptive and inferential statistics.

This is a field in which most people have earned a master's or doctoral degree. You would also benefit from non-technical workplace skills, like communication, collaboration, intellectual curiosity, and business acumen.

Source: Top 5 Jobs In AI and Key Skills Needed To Help You Land One, SimpliLearn, by Eshna Verma, 2022

Business intelligence developer

Business intelligence (BI) developers design, model, build, and maintain data sets for complex data platforms. Their primary job is to analyze complex data and look for current business and market trends to help increase the profitability and efficiency of

their organization. Strong technical and analytical skills would help you break into this field, as well as collaboration and problem-solving skills.

For this career, you should consider earning a bachelor's degree in computer science, engineering, or a related field, or a combination of certifications and on-the-job experience. Companies usually prefer candidates with experience in data warehouse design or with data mining, and knowledge of BI technologies, SQL queries, SQL Server Reporting Services (SSRS), and SQL Server Integration Services (SSIS).

Source: Top 5 Jobs In AI and Key Skills Needed To Help You Land One, SimpliLearn, by Eshna Verma, 2022

Robotic scientist

Robots can automate jobs, but they require programmers working behind the scenes to ensure they function well. Robotics engineers build and maintain AI-powered robots. Their job is to design and build mechanical devices that can perform tasks with commands from humans. To succeed in robotics, you should learn to code in various programming languages and to develop working prototypes.

To prepare for a career in robotics, you might earn a bachelor's degree in one of the following disciplines: robotic engineering, mechanical engineering, electro-mechanical engineering, or electrical engineering. Companies also look for professionals with specializations in advanced mathematics, physical sciences, life sciences, computer science, computer-aided design and

drafting (CADD), physics, fluid dynamics and materials science, and a related AI certification.

Source: Top 5 Jobs In AI and Key Skills Needed To Help You Land One, SimpliLearn, by Eshna Verma, 2022

Software engineer

AI software engineers build software products for AI applications. AI software engineers develop and maintain the software that data scientists and architects use. They stay informed and updated about new artificial intelligence technologies.

As an AI software engineer, you'd be skilled in software engineering and artificial intelligence. You'd have programming skills, statistical skills, and analytical skills. Companies typically look for a bachelor's degree in computer science, engineering, physics, mathematics, or statistics.

Source: 10 Awesome & High-Paying AI Careers to Pursue in 2022, Springboard, by Sakshi Gupta, 2022

Natural language processing engineer

Natural language processing (NLP) engineers are AI professionals who specialize in human language, including spoken and written information. The engineers who work on voice assistants, speech recognition, document processing, and so on use NLP technology.

For the role of an NLP engineer, organizations expect you to have a specialized degree in computational linguistics or a

> combination of computer science, mathematics, and statistics.
>
> **Source:** 10 Awesome & High-Paying AI Careers to Pursue in 2022, Springboard, by Sakshi Gupta, 2022

Do the requirements for these job roles sound difficult? Perhaps they might, but the meaningful work they lead to can be rewarding. You can find much of the learning you need online or in a local college or university. You can also earn certifications online. Remember, if you can obtain an entry-level job and perform well, many employers will help you find more advanced training.

Key takeaways

- Bringing change to the world through AI makes every day exciting.
- Learn from everyone and everything. Life is continually teaching you lessons.
- If you are starting out and interested in AI:
  - Enjoy the journey and be open to new opportunities.
  - Connect with others. Working on AI is a collaborative adventure.

Key takeaways

- When you learn, you empower yourself. Never stop learning.
- Develop a problem-solving mindset.
- If you are starting out and are interested in AI:
  - Be curious and ask a lot of questions.
  - Always consider ethics when working with AI.