



CAREERS IN:  
**ARTIFICIAL  
INTELLIGENCE**

A GUIDE FOR CAREER ADVISERS

2026

# ARTIFICIAL INTELLIGENCE

A GUIDE FOR CAREER ADVISERS

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# INDUSTRY INSIGHTS



## INDUSTRY INSIGHTS

AI is described by the OECD as “a transformative technology capable of tasks that typically require human-like intelligence, such as understanding language, recognising patterns and making decisions”.

The UK is one of the global leaders in AI research, development and adoption with the sector encompassing careers involved in building, deploying, maintaining or using AI systems. It is one of the fastest-growing parts of the UK labour market and the Government’s [Artificial Intelligence Sector Study](#) published in December 2025 reports an 85% increase in the number of AI companies from 2022-24. This reflects the increasing integration of AI across the economy within multiple industries, from healthcare and finance to manufacturing and professional services.

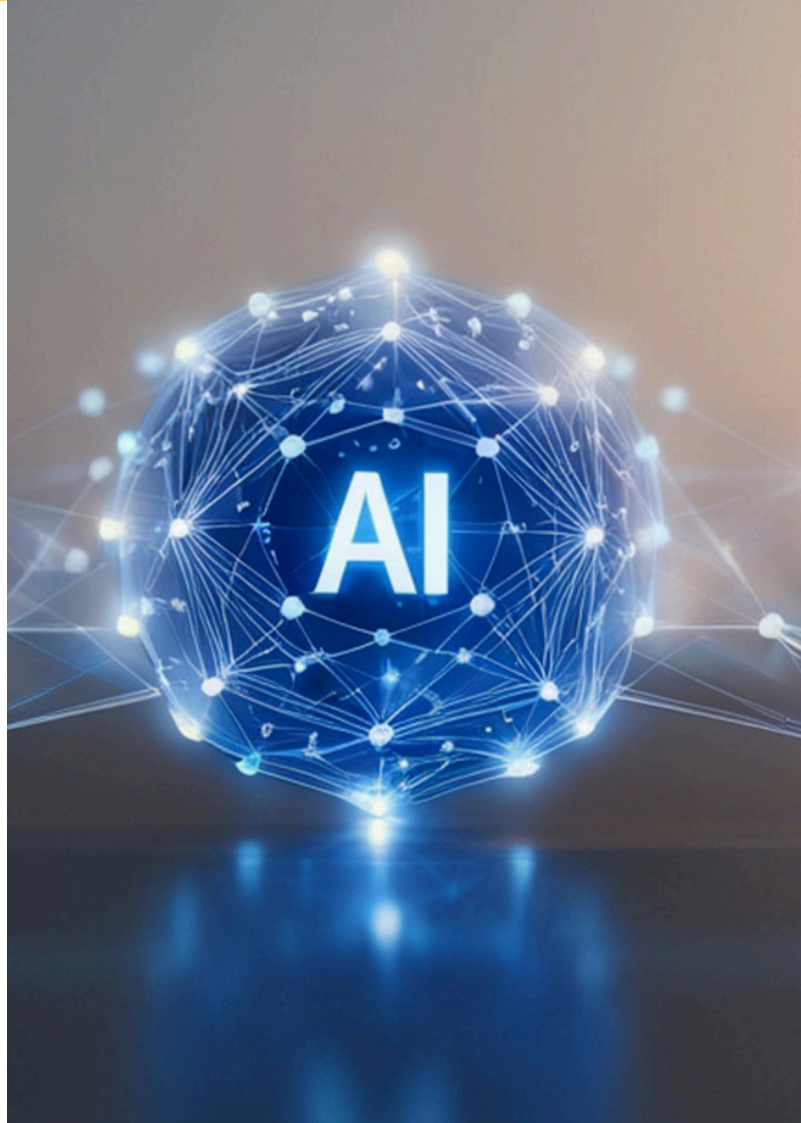
## THE IMPACT OF AI ON FUTURE JOBS

Whilst the advancement of AI provides new opportunities and job creation, we need to acknowledge that shifting skills demand and changing job structures may mean a decline in some job sectors and job roles.

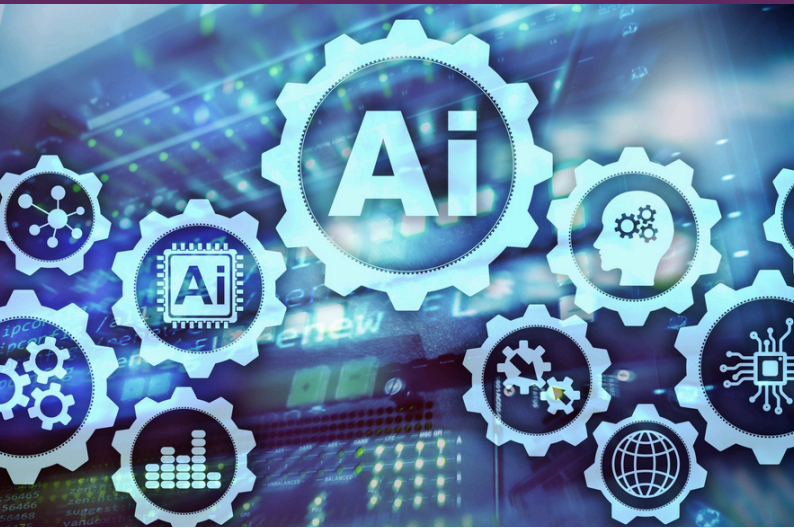
Although not conclusive, evidence in the [Government’s Assessment of AI capabilities and the Impact on the UK Labour Market, 2026](#), suggests that hiring is falling faster in occupations more exposed to AI. A study by [Kings College London](#) in 2025 also found that junior technical positions were more susceptible to decline where AI can automate parts of technical work traditionally done by early-career staff. This could impact job sectors such as:

- Administrative, secretarial and clerical
- Skilled trades & machine operators

However, job roles involving human judgement, creativity, care, or complex communication are expected to grow over the coming years.



# INTRODUCING AI CAREERS



To meet this rising demand a short term target is to train tens of thousands of AI professionals by 2030.

This includes growth in the following sectors:

- Professional services & technical specialists (digital & IT, engineering, business & finance, legal, scientific research)
- Health & social care
- Customer-facing roles
- **AI Specialists & Implementers**

## GROWING EMPLOYMENT OPPORTUNITIES IN AI

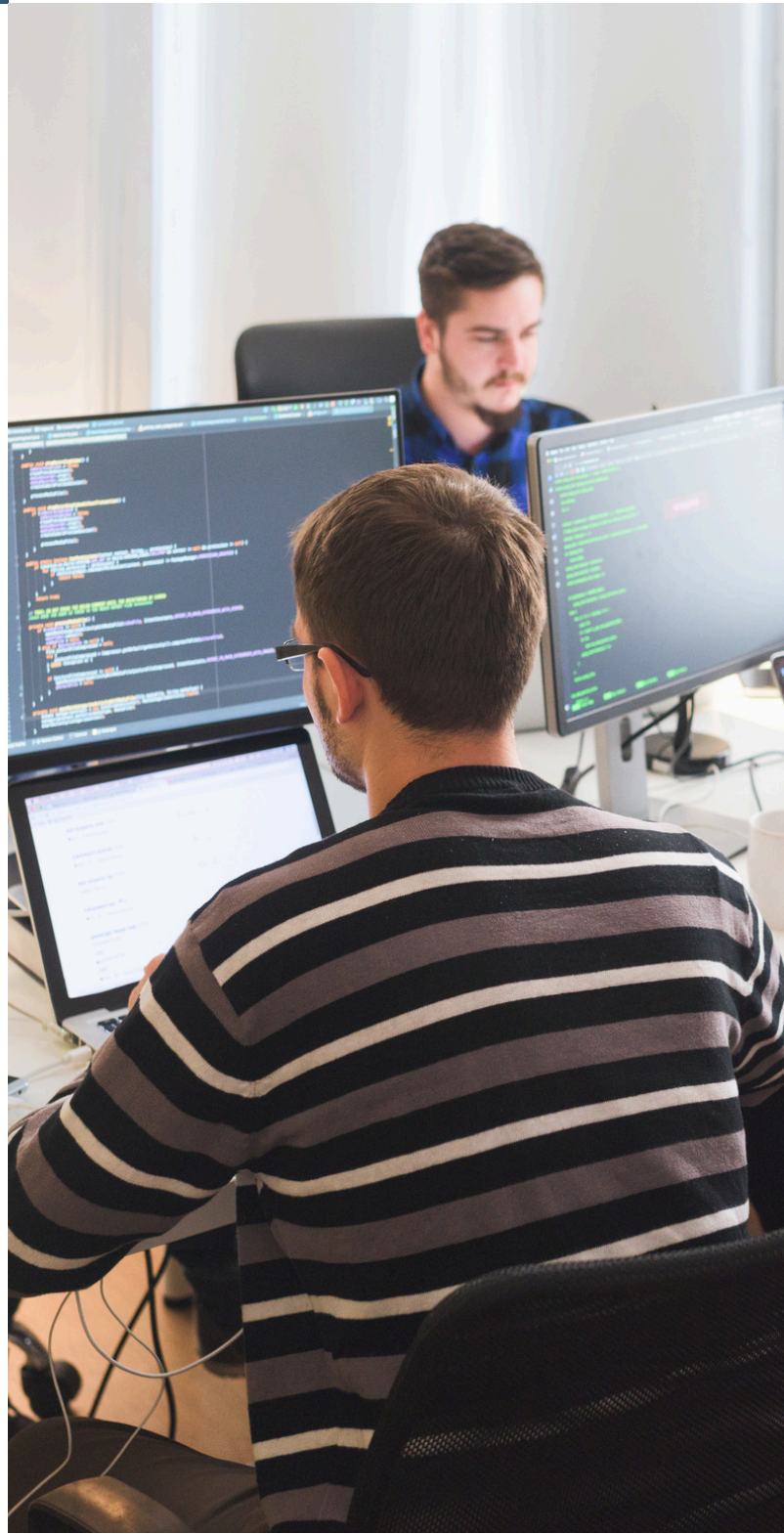
Britain is the third largest AI market in the world and is home to an array of global talent and pioneering AI firms like Google, DeepMind, ARM, and Wayve. But it's not just big tech companies where AI skills are in demand. UK SMEs have an increasing need for staff who can implement, manage or work alongside AI systems.

Since 2022, the Government's Labour Market Survey report 2025 shows the number of full time employees employed in both dedicated and diversified AI companies has increased by 72%, from 50,040 in 2022 to 86,139 in 2024 (+36,099).

However, 35% of organisations are struggling to fill AI roles and jobs directly involving AI activities could rise from 158,000 in 2024 to 3.9 million by 2035. Most of this increase will not be new jobs, but changes in the nature of existing jobs where AI responsibilities have been added such as implementing and managing the use of AI in the workplace.

AI Sectors with the largest nominal growth include:

- IT professionals like programmers and software developers, IT specialist managers, and IT business analysts and systems designers
- Research professionals and Business / Finance roles, like financial analysts, management consultants, and business project managers.

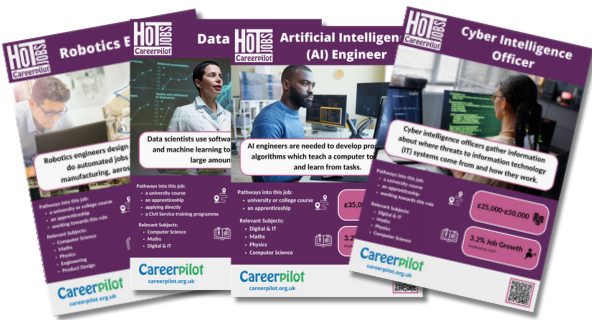


# JOB ROLES IN AI

In the 2026 [Skills for Life and Work report](#), regional variation in the demand for AI skills is a factor with a higher concentration in London and the South East of the UK especially for expert AI skills. However, emerging clusters are evident in other areas such as Cambridge, Bristol, Oxford, Manchester, and Reading.

## 10 AI HOT JOBS ON CAREERPILOT

- **ROBOTICS ENGINEER**
- **SOFTWARE DEVELOPER**
- **SOLUTIONS ARCHITECT**
- **SYSTEMS ANALYST**
- **TECHNICAL ARCHITECT**
- **ARTIFICIAL INTELLIGENCE (AI) ENGINEER**
- **CYBER INTELLIGENCE OFFICER**
- **DATA ANALYST-STATISTICIAN**
- **DATA SCIENTIST**
- **RESEARCH SCIENTIST**



**[CLICK HERE TO ACCESS AI HOT JOB POSTERS](#)**

In addition, the following are emerging roles which are also predicted to grow as AI technology advances and roles become more specialised.

## AI RESEARCH AND VALIDATION

*Require AI Experts and Specialists*

**AI Research Scientists** - explore how machines learn, reason, and make decisions.

**Knowledge Engineers** - engaged in the science of building advanced logic into computer systems in order to try to simulate human decision-making and high-level cognitive tasks.

**Model Validators** - assess machine learning models for accuracy, reliability, and bias before and after deployment, ensuring they function as intended on unseen, real-world data.



## AI PRODUCT AND INTEGRATION

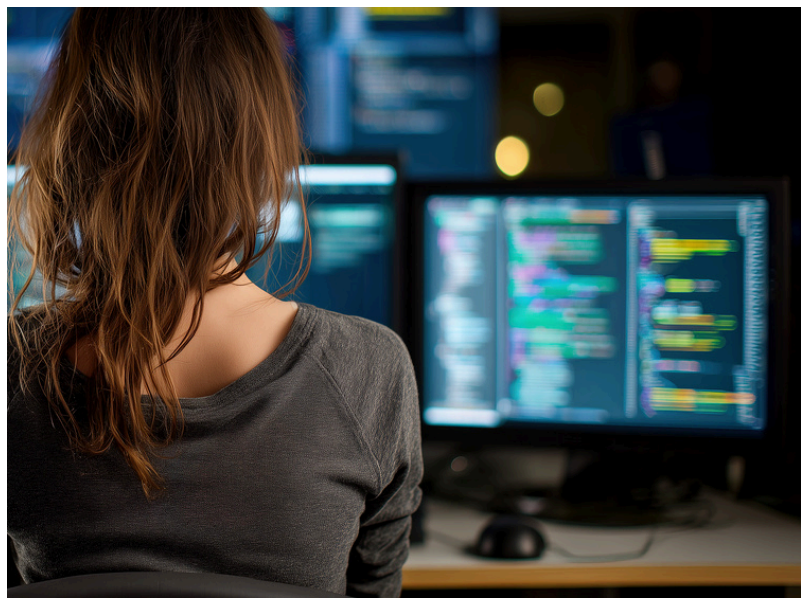
*Require AI Implementors*

**AI Product Managers** - combine technical understanding with strategic thinking. They ensure AI-based products align with customer needs, ethical standards, and business goals. They decide what AI features to build and how to use AI to improve apps and services.

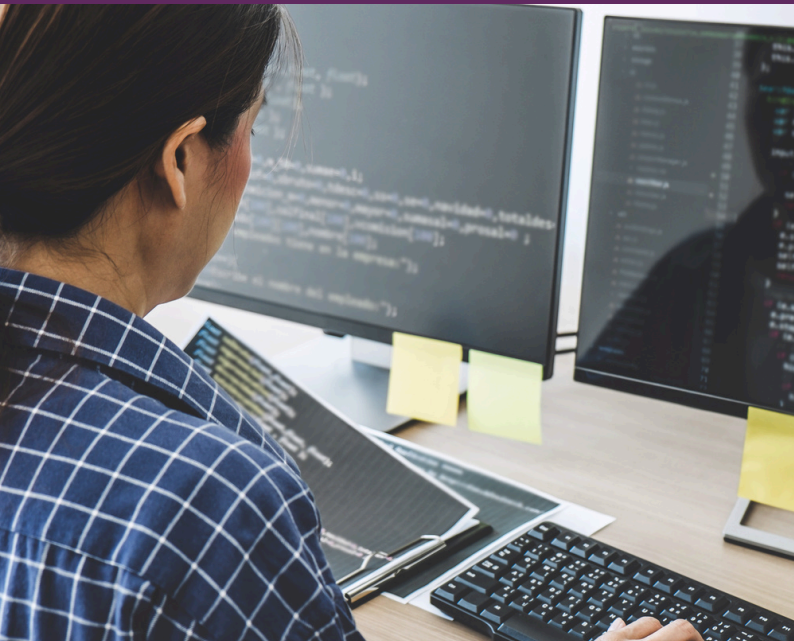
**Automation and Workflow Designers** - design systems that reduce manual work, improve accuracy, and save time, whether in manufacturing, IT, or business operations.

**Natural Language Processing (NLP) Engineers** - ever chatted with Siri or Alexa? That's NLP in action. NLP Engineers develop systems that help machines understand human language, written or spoken.

**AI Consultants** - guide organisations through their AI transformation journey, helping them identify opportunities, integrate technologies, and optimise processes.



# JOB ROLES IN AI



## AI GOVERNANCE AND ETHICS

*Require AI Implementors*

**AI Ethics and Policy Specialists** - ensure that algorithms remain fair, transparent, and unbiased. They define policies that prevent the misuse of AI technologies and ensure responsible AI.

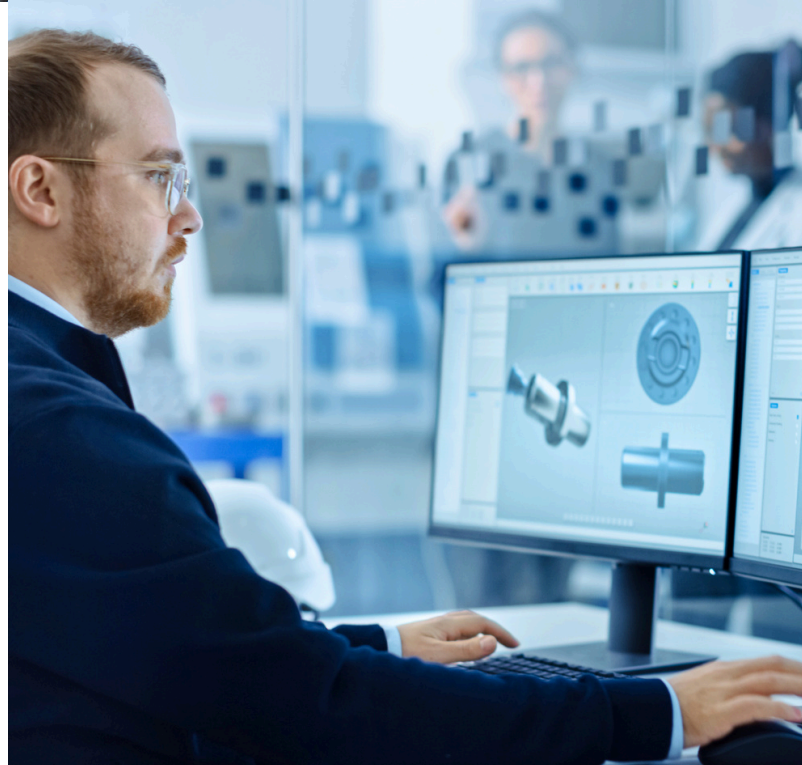
**AI Governance Managers** - ensure AI systems and tools are safe and ethical. AI governance frameworks direct AI research, development and application to help ensure safety, fairness and respect for human rights.

## AI DEVELOPMENT AND ENGINEERING

*Require AI Experts and Specialists*

**Machine Learning Engineer** - develop algorithms that enable computers to learn automatically from data without requiring explicit programming. They build the brains behind apps like chatbots, recommendation systems and image recognition tools.

**AI Architect** - AI architects lead the creation of a company's AI architecture with varying frameworks and deployment models to devise and execute AI architecture strategy.



## AI SECTOR-SPECIFIC ROLES

*Require AI General Users*

**Healthcare AI Specialists** - translate clinical reality into safe, measurable, governable AI use and translates AI behaviour back into clinical workflows without harming patients. AI is seen as essential to tackling NHS waiting lists and improving diagnostics, patient triage, and resource allocation.

**AI-Enhanced Creative & Media Roles** - as UK creative industries adopt generative AI, hybrid creative/technical roles are expected to grow.



# SKILLS NEEDED FOR AI CAREERS



## AI Implementors

- Project management
- AI strategy and implementation
- Business analytics
- Data analytics and market research
- Understanding risks and threats
- Judging accuracy and reliability
- Keeping information safe
- Workflow optimisation
- Ethical frameworks
- Understanding of AI governance
- Legal and policy knowledge

A high percentage of AI roles including those working as Experts, Specialists and Implementors require degree level qualifications or above.

Entry-level AI roles typically focus on tasks that support data processing, model development, system testing, and research assistance. These positions do not require extensive industry experience, though a basic understanding of AI concepts is essential. Job titles may include junior data analyst, AI assistant, machine learning intern, junior data scientist, or AI research technician.

## General AI Users

- Technical skills to use AI tools e.g. prompt engineering
- Generating, interpreting and evaluating outputs
- Data analysis
- Critical thinking
- Skills for understanding
- Ethical awareness

## TECHNICAL SKILLS

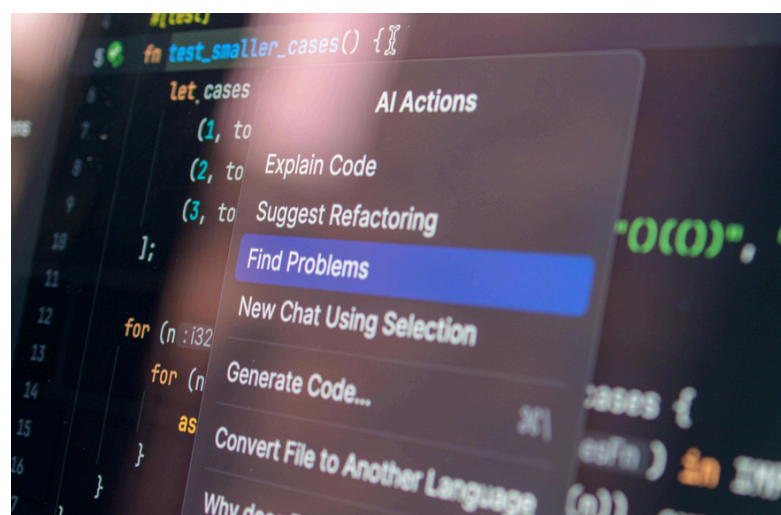
There are a range of generic digital and technical skills that may be needed for different AI roles including:

- The ability to use a computer and the main software packages confidently
- Knowledge of computer operating systems, hardware and software
- Coding and programming
- Data handling
- Cybersecurity awareness
- Digital problem solving
- Technical creativity

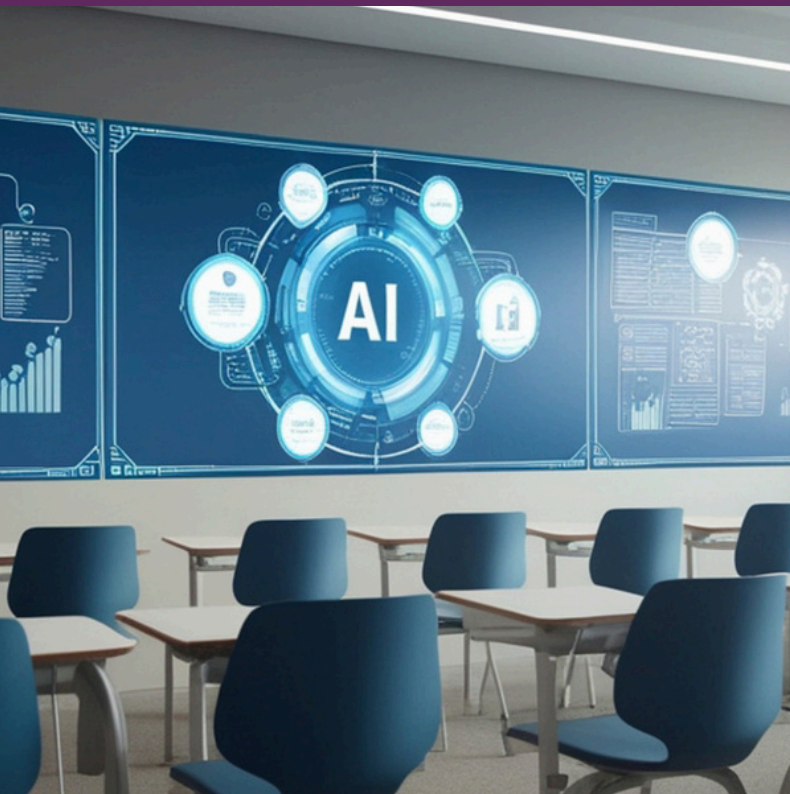
When you break this down by type of AI professional, technical and non-technical skills become more specialised.

## AI Experts and Specialists

- Python, TensorFlow, PyTorch
- Machine Learning & Deep Learning
- Natural Language Processing (NLP)
- Neural Networks
- Data science
- Software development
- Statistics and probability
- Advanced mathematics
- Programming
- AI research and academia



# SKILLS NEEDED FOR AI CAREERS



## HOW TO BUILD DIGITAL SKILLS

Most computing, digital and IT courses available through school, college and university will support students to build the technical skills needed to work with AI.

In addition, platforms like [Coursera](#), [edX](#), and [Udacity](#) provide AI, machine learning and coding courses recognized by employers.

There are also bootcamps delivering intensive training to help learners transition quickly into entry-level AI roles.

[Search for courses on the National Careers Service](#)



## ESSENTIAL SKILLS

In addition to technical skills specific to certain jobs, there are eight essential skills that are needed in ANY job. With the emerging use of automation and AI these human skills will be even more important:

- **Communication skills** - Listening and Speaking to share ideas and learn from others
- **Creative Problem-Solving skills** - Problem Solving and Creativity to find solutions to problems and use imagination to generate and test new ideas
- **Self-management skills** - Adapting and Planning to upskill and learn, to overcome challenges and plan ahead to make the most of emerging opportunities.
- **Collaboration skills** – Teamwork and Leadership to collaborate, share ideas and work effectively with others to achieve a shared goal.

Students can explore and record their skills strengths using the [Careerpilot Skills Profile](#).



# POST 16 PATHWAYS

## ACADEMIC ROUTE

A Level subjects students may choose that relate to careers in AI include:

- Maths (*most AI degrees require A-level Maths*)
- Further maths
- Computer Science
- Psychology
- Statistics or Economics
- Physics
- Design Technology



## VOCATIONAL/TECHNICAL ROUTE

Students may choose to study a Level 2/3 Computing or one of the following T-levels at a local college. However, do check with local education providers as not all are offering every digital T-level.

T Level:

- Digital Production, Design and Development
- Digital Data Analytics
- Digital Support & Security
- Engineering & Manufacturing

[Search for your nearest T Level offer here.](#)

## APPRENTICESHIP ROUTE

Intermediate/Advanced apprenticeships include:

- Digital & AI support
- Cyber security technician
- Data technician
- IT support technician
- Software developer

[Search for current live apprenticeship vacancies](#)



# POST 18 PATHWAYS

## ACADEMIC ROUTE

There are many universities offering BSc Degree courses related to AI including in:

- Data Science
- Computer Science
- Artificial Intelligence

Students may then choose to specialise in AI or Robotics through further postgraduate study.

If preferred some students may choose to study a foundation degree in Computing.

[Search for university courses.](#)



## VOCATIONAL/TECHNICAL ROUTE

Students may choose to go to a local college or university centre to continue their study through a Higher Technical Qualification or HNC/D in one of the following subjects:

- Applied Computing
- Computing (Cyber Security)
- Artificial Intelligence (AI) Solutions & Applications
- Digital Technologies

[Search local providers to view their HTQ offer](#)

## APPRENTICESHIP ROUTE

Many employers offer degree apprenticeships where the young person can learn on the job alongside their study. Level 6 and 7 apprenticeships can be taken in:

- Cyber security technical professional
- AI Engineer
- Data Analyst
- Data Scientist
- Digital and Technology Solutions Professional

[Search for current live apprenticeship vacancies](#)



# USEFUL LINKS AND RESOURCES

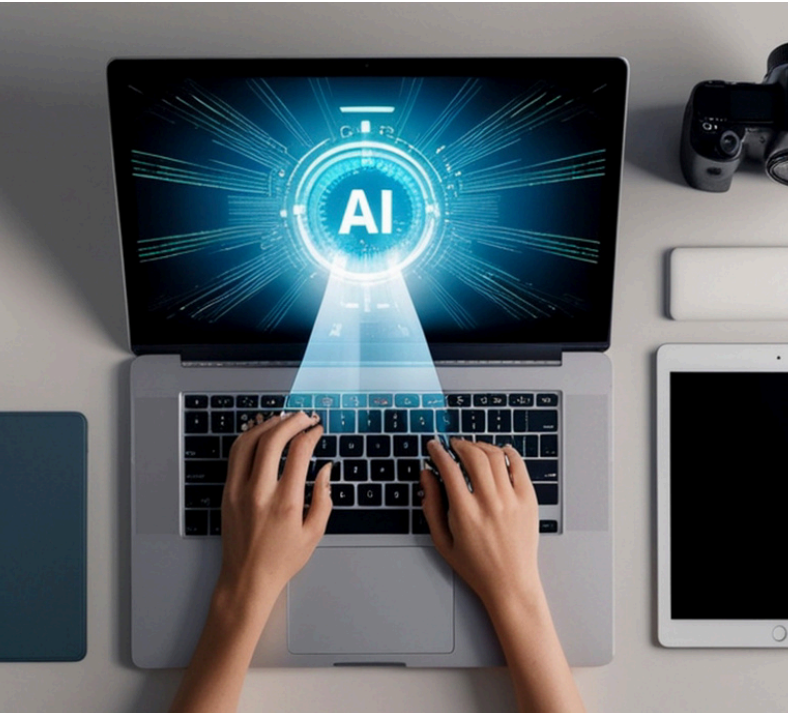
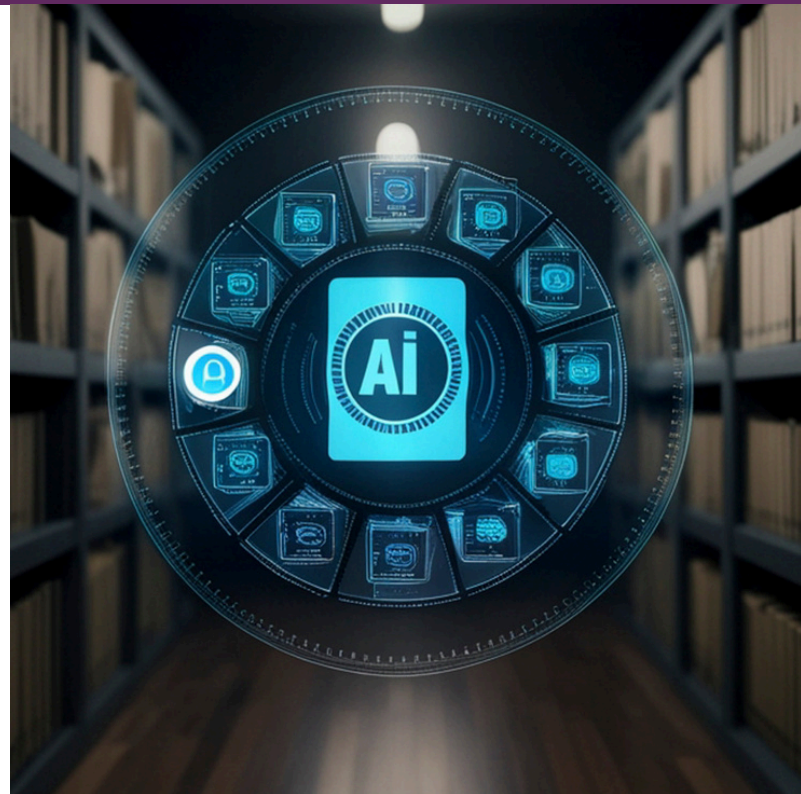
## SOURCES

### Page 3

- [OECD](#)
- [Assessment of AI capabilities and the impact on the UK labour market January 2026](#)
- [The impact of AI on UK jobs and training November 2023](#)
- [AI Sector Study 2024](#)
- [AI Labour Market Survey Report 2025](#)
- [Kings College London Study 2025](#)

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- [AI Opportunities Action Plan 2025](#)
- [AI Labour Market Survey Report 2025](#)
- [AI Skills for Life and Work: summary report 2026](#)



## OTHER USEFUL WEBSITES & PROGRAMMES

- [Watch Will AI Take My Job? Dispatches | Stream free on Channel 4](#)
- [The Fearless Future: 2025 Global AI Jobs Barometer - UK Analysis](#)
- [Entry-Level AI Jobs UK: A Comprehensive Guide for New Professionals - Companies on The Rise](#)
- [The Alan Turing Institute - the UK's national institute for data science and artificial intelligence.](#)
- [Prospects - how to get a job in AI](#)



## EXPLORE MORE DIGITAL AND IT JOBS ON CAREERPILOT

Explore more job profiles in Data & Network, Software & Systems and in Social Media. Learn about job growth, day to day tasks and routes in, and watch related video stories.

