

AI Data Specialist Level 7

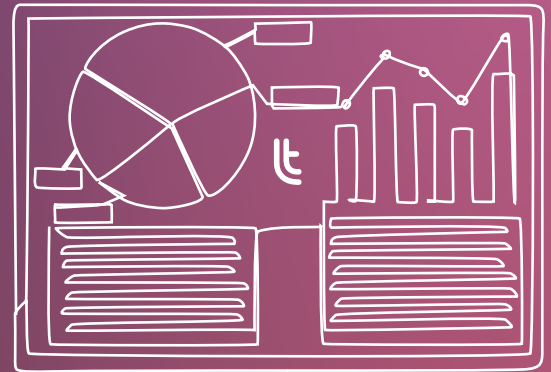


18 Months
+End Point Assessment



Live virtual learning

Discover new artificial intelligence solutions that use data to improve and automate business processes



★★★★★ **Excellent** ★★★★★ **Excellent**
Employer reviews Apprentice reviews
Official Education and Skills Funding Agency reviews and pass rate

98.4%
Pass Rate

Ofsted
Good
Provider

Live Virtual Learning

“

The weekly training sessions with LearnTech help to bring the theory alive; my trainer is great at giving real-life examples to provide context. ”

LearnTech apprentice



★★★★★ Excellent
Employer reviews

★★★★★ Excellent
Apprentice reviews

98.4%
Pass Rate


Good
Provider

Welcome to LearnTech



Katie Fowler

Director of Education

Our mission is to inspire and educate tech talent in England, by providing outstanding tech training and apprenticeships...



At LearnTech, our primary focus is to provide high-quality tech training and digital apprenticeships. We do this through innovative teaching, equipping students with the skills and knowledge they need to build outstanding careers in tech, and support organisations effectively.

When designing our curriculums, we consider the knowledge, skills (both technical and non-technical) and behaviours employers need most in the workplace, to impact the ability of our students to progress in their chosen careers. We work in partnership with our employers to deliver exceptional collaborative learning experiences tailored to real-world demands.

We're passionate about reducing gaps in accessibility and opportunity through our tech training, alongside literacy and numeracy

development, supporting our employers and partners to this end. We also have a dedicated team focused on accessibility and inclusivity for students with additional learning support needs, creating a safe, welcoming environment where everyone can thrive.

At LearnTech we never compromise quality for commercial gain. Our trainers and mentors have lower than average caseloads, ensuring every student benefits from regular, dedicated and personalised attention to enhance their learning.

Both our students and team are part of a community built on collaboration, plus continuous learning and improvement. Alongside our employer partners, they are at the heart of everything we do. We strive to create an environment where our educators can focus on what they do best - teaching tech and empowering the next generation of tech talent.

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Level 7

AI Data Specialist

Overview



This apprenticeship creates AI leaders who build AI solutions to solve business problems and drive improvement

Sally Sam - L7 AI Trainer / Mentor

AI Data Specialists champion AI and its applications within their organisation and promote adoption of novel tools and technologies, informed by current data governance frameworks and ethical best practices.

Our apprenticeship is designed to enable individuals to devise data-driven AI solutions, automate and optimise business processes and to support, augment and enhance human decision making.

Who is it for?

This apprenticeship is designed for individuals working in a position which requires them to create AI solutions and provide advice on the use of AI.

Apprenticeship candidates are likely to be working as

- AI Engineer
- AI Specialist
- AI Strategy Manager
- Machine Learning Engineer / Specialist

Candidates will need to...

- | | |
|--|---|
| ☐ Be in or being hired into a job role with AI creation responsibilities | ☐ Not have already undertaken an AI or machine learning project for a business |
| ☐ Undertake a real-world AI project to showcase their knowledge | ☐ Have support from their employer to dedicate approximately 8 working hours a week to training |
| ☐ Have Level 6 (Degree Level) knowledge, or equivalent, in technical content such as computer science or mathematics | ☐ Have a high-level understanding of maths and English (extra training can be given) |

The primary role of an AI Data Specialist is to develop innovative, data-driven AI solutions that automate and optimise business processes while enhancing and supporting human decision-making.

These specialists conduct applied research to create AI solutions tailored to address specific business challenges. They work with large, complex, varied, or fast-moving datasets that traditional methods can't handle effectively, making their expertise crucial in situations where conventional approaches fall short.

This apprenticeship has been carefully designed by our experts to ensure it covers all the required **Knowledge, Skills, and Behaviours (KSBs)** outlined in the Institute for Apprenticeships AI Data Specialist Standard. For full details visit www.instituteforapprenticeships.org

Throughout the programme, the employer works closely with the apprentice to ensure that all Occupation Duties are fulfilled, experienced, and properly evidenced as part of the apprenticeship.

By the end of the programme, the apprentice will have developed a comprehensive knowledge base and skill set.

What are KSBs?

Knowledge, skills and behaviours (KSBs) refer to the essential elements an apprentice must master to be confident and competent in their organisation's Occupation Duties.



Knowledge

The information, technical detail, and 'know-how' needed to effectively perform job tasks.



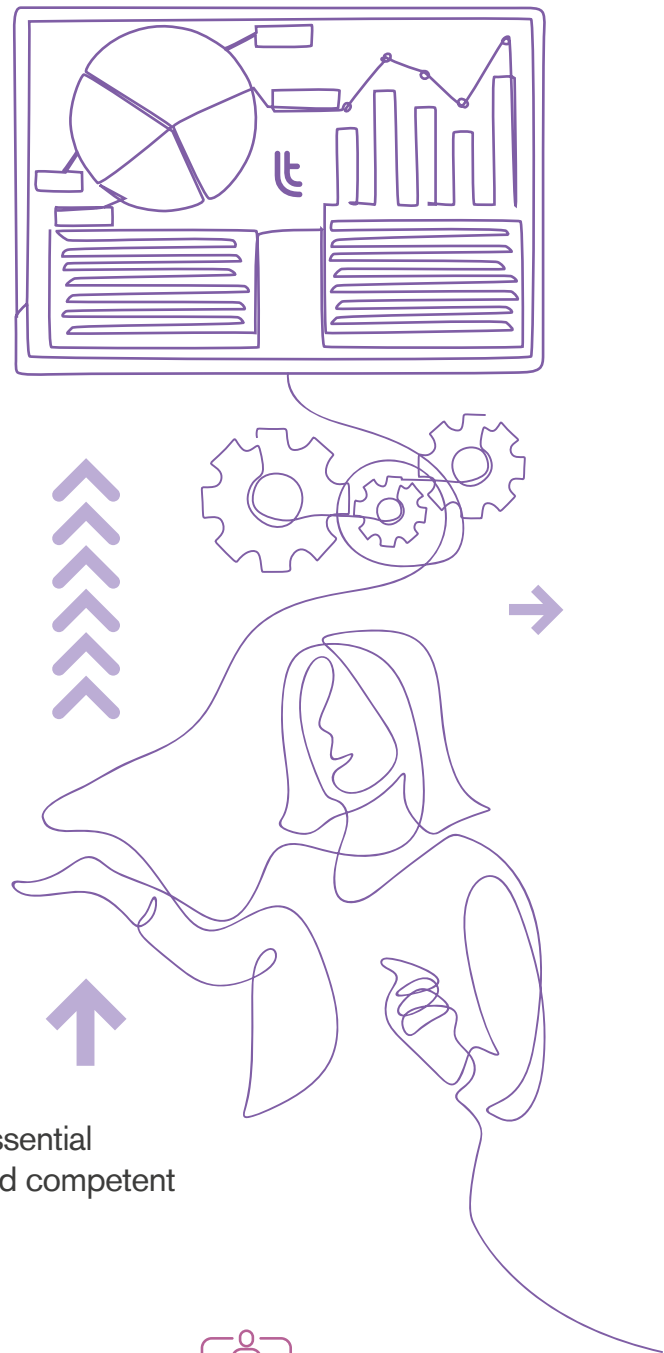
Skills

The practical application of knowledge, enabling an apprentice to successfully carry out their duties.



Behaviours

Mindsets, attitudes or approaches needed for competence.



Programme content summary

During this programme, an apprentice will learn to...

- ✓ **Understand** the AI landscape including ethics, privacy and impact
- ✓ **Devise** data-driven AI and machine learning solutions for decision support
- ✓ **Utilise** different types of machine learning models and techniques
- ✓ **Understand and apply** neural networks and deep learning
- ✓ **Build products** to solve complex problems
- ✓ **Use ensemble methods** and undertake model evaluation
- ✓ **Develop advanced level** Python, NumPy and pandas
- ✓ **Lead research** into AI and ongoing potential application
- ✓ **Undertake projects** in an agile environment, and collaboratively maintain technical standards within AI solutions

To equip apprentices with the skills needed for success in the industry, we've developed the curriculum to include the following additional teaching...



Generative AI

Building vs. Buying AI

Extra AI Algorithms
(evolutionary, search, expert systems, graph)

Data Science Toolbox
(Python, NumPy, pandas, Scikit-Learn)

Deep Neural Networks
(PyTorch)

Machine Learning
(semi-supervised)

Hyperparameter Tuning

Feature Engineering

Live virtual learning

Our interactive live, online training model is designed to create a flexible learning environment without losing any of the benefits of in-person teaching.

This typically looks like...

- Live weekly online sessions – 2.5 - 3 hours per week
- Immersive learning through Microsoft Teams Classroom
- Maximum classroom size of 12 ensuring a highly effective trainer to student ratio
- Monthly 1 to 1 mentor meetings
- Weekly study / practice (off-the-job training) of 5 - 7 hours



Timeline & process

1 Onboarding & enrolment

4 - 8 Weeks

Programme planning & paperwork

This first phase involves all parties - employer, apprentice and LearnTech designing the bespoke apprenticeship training plan, and completing contracts and relevant paperwork.

2 Training, mentoring and gateway

18 Months

This is when the on and off the job training, knowledge, skills and behaviours work begins, and continues for the duration of the programme.

LearnTech's designated mentor will be the primary contact for both the employer and apprentice, offering continuous support throughout the programme.

Once the apprentice has reached the end of their programme, they will enter Gateway. This is an evaluation period between completing their training and final preparations for their End Point Assessment (EPA).

Training

- 1.5 - 2 hours weekly training session
- 5 - 7 hours minimum extra study / practice weekly, also known as 'off the job training'
- 1 - 2 hours English / maths training weekly, if required

Mentoring

- 1 hour mentoring session every 4 weeks
- 1 hour progress review every 10 weeks
- Extra hours for additional learning support, if required
- Extra hours for End Point Assessment preparation, if required

Gateway

Apprentice, employer and LearnTech agree apprentice is ready for End Point Assessment.

3 End Point Assessment (EPA)

Up to 6 Months

Opportunity for apprentice to demonstrate their knowledge and skills against the apprenticeship criteria to gain their qualification.

Methods

- Project report (5,000 words)
- Presentation & questions (avg 75 minutes)
- Professional discussion (60 minutes)
- Technical test (100 minutes)

4 Alumni

After successful completion

Continued development

LearnTech are keen to offer your apprentice support to develop further and opportunities to share their skills.

Apprenticeship funding

Government funding is available to all employers who hire an apprentice, with up to 100% of the training costs covered. The amount of funding an employer can receive depends on factors like their payroll bill, the number of employees, and the apprentice's age.

For detailed information on how apprenticeship funding works and what a business may qualify for, visit learn-tech.com/how-funding-works

Next steps

If you'd like to become an apprentice...

An apprenticeship is tied to employment and available to anyone aged 16+. Here are the three main ways to get started...

- Apply for an apprenticeship vacancy. Check out our current openings at learn-tech.com/vacancies or visit findanapprenticeship.service.gov.uk
- Talk to your current employer about an apprenticeship as part of your career development
- Approach another employer, proposing to join their team as an apprentice

Explore learn-tech.com/apprentice-guide for more information.

If you're an employer...

Tech apprenticeships are a great way for your organisation to develop skilled employees relevant to your business. Explore our Employer Guide for comprehensive information about our tech apprenticeships and how to recruit your apprentice.

If you have any questions or would like to book a no obligation Information Session, please contact us and we'll be happy to help.

learn-tech.com/employer-guide

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