

Level 4 Applied Data and AI Specialist.

This is apprenticeship goes beyond traditional data analysis by integrating cutting-edge AI methodologies directly into your team's workflow. Designed for immediate impact, employees will learn to automate and streamline data manipulation and reporting with AI-enhanced scripting. They will be empowered to solve real business challenges through AI-optimised decision-making tools. Learners gain the practical, responsible AI skills needed to boost productivity, improve efficiency, and generate powerful business insights through smarter strategies with AI-enabled predictive analytics and forecasting. Build in-house AI capability today, and lead with intelligence tomorrow.

Who's it for?

This programme is ideal for people at the beginning of their professional journey with a foundational understanding of data handling. Learners should have a strong interest in data analysis and AI and want to develop specialised skills early in their career. For those already working in roles with proficiency in data management or self-taught analytics, this programme offers structured learning to expand expertise in AI-driven data analysis and best practices.

Typical job roles include: Data Analyst, Business Intelligence Analyst, Market Research Analyst.

Business impacts

- ✓ Make sharper, faster decisions by exposing performance gaps through AI-powered analytics
- ✓ Streamline operations with intelligent data tools that uncover inefficiencies, cut costs, and boost productivity
- ✓ Harness the power of Big Data to drive innovation, uncover untapped opportunities, and gain a competitive edge
- ✓ Stay ahead of change by applying predictive insights that proactively shape strategy and fuel long-term, sustainable growth
- ✓ Accelerate responsiveness by automating data workflows, turning raw data into clear insight faster
- ✓ Embed a data-first culture that empowers teams, speeds up tech adoption, and drives enterprise-wide transformation

Built for performance

- ✓ **AI embedded across every programme.** Equipping your workforce to develop job-ready skills that boost productivity and drive business impact.
- ✓ **Measurable business impact, not just learning outcomes.** Learners complete real workplace projects, supported by Coaches who help translate skills into demonstrable ROI.
- ✓ **Hands-on learning through virtual labs.** Guided virtual labs allow learners to safely experiment with real tools and technologies, mirroring real-world technical environments.
- ✓ **Relevant, tailored learning.** Data-sets and case studies can be adapted to ensure learning remains relevant to the individual and the sector or business area they work in.
- ✓ **Verified digital credentials employers can trust.** Digital badges and vendor-aligned certifications provide secure, shareable evidence of skills and progression.
- ✓ **Personalised continuous development.** Learners have the 'digital edge' – masterclasses, podcasts, guest speakers, in-person meet-ups, on-demand e-learning tech modules – all available according to their need and interests.

Programme overview.

Apprenticeship standard:

Data Analyst

Cost: £15,000

Duration: 18 months

Entry requirements

As a minimum learners will need to have:

- Five GCSEs at grades 9 to 4 (A* to C), and
- Level 3 qualification in a relevant subject such as computer science/maths/applied sciences, earned through one or more A-Levels (or equivalent), or
- An equivalent professional certification in IT/computing/statistics/maths/engineering

For learners that do not have GCSE English and/or maths at grades 9 to 4 (A* to C):

- Learners aged 16–18 years must study and pass Functional Skills English and/or maths as part of the apprenticeship programme
- Learners aged 19 or above on the day they start the programme do not need to study or pass Functional Skills English and/or maths, unless required by their employer



Prepare for the challenges of tomorrow

Get ahead of evolving workforce skills needs

Every BPP apprentice has access to our exclusive Emerging Skills programme.

Comprised of four bespoke courses, the programme combines expertise from BPP, Microsoft and xUnlocked to give learners essential knowledge and skills in the rapidly emerging areas of AI, cyber security and sustainability.

- ✓ Available to all learners at no extra cost
- ✓ Accessible anytime, anywhere via our virtual learning platform
- ✓ Self-paced learning to fit into any busy schedule



Programme contents

Generative AI Fundamentals (Four modules)

Developed by BPP's expert data scientists, this course offers an introduction to working with generative AI effectively, safely and ethically.

Introduction to Sustainability (Six modules)

Developed in partnership with sustainability experts, xUnlocked, this course builds fundamental knowledge on sustainability and sustainable working practices.

Microsoft AI and Security Essentials (Seven modules)

This course begins with a core AI Essentials pathway, followed by a choice between AI Fundamentals or Security. Microsoft digital badges are awarded throughout, with the option to earn a recognised Microsoft Certification upon completion.

Cyber Security (Three modules)

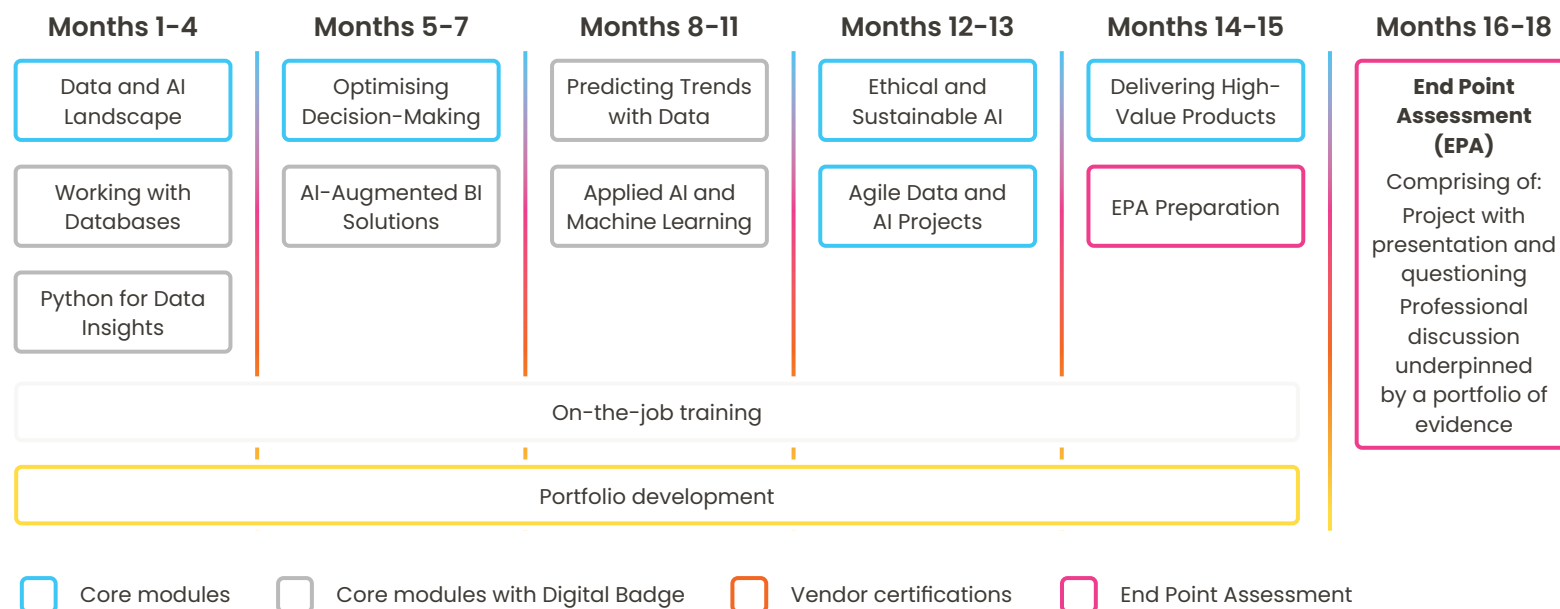
Designed by BPP's cyber experts, this course provides a clear and practical introduction to the importance of cyber security, the most common attack techniques everyone should be aware of, and the fast-changing digital threat landscape.

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Study mode

Online weekly: flexible learning that fits busy schedules, with two to three hours of online live lectures and seminars.

18-month programme (inc. EPA)



Apprenticeship standard

Data Analyst

Delivered by

BPP

Time commitment*

- 15 months** on programme
- 174 days** (three hours per week) in online live training sessions (58 sessions in total)
- 3-4 hours** guided self-study, per module, via our virtual learning platform
- 1 hour** performance coaching session, every month
- 1 hour** progress review, every eight weeks
- 1 hour** EPA preparation session
- 3 months** in End Point Assessment
- Off-the job training** (average six hours a week) Apprentices have dedicated learning time within their normal working hours to develop new skills directly linked to their apprenticeship. Training, mentoring, online learning and project work all count toward this time, and sit alongside their normal duties, not outside them.

*On average.

Programme modules.

Data and AI Landscape

This module introduces learners to the evolving data and AI landscape, helping them understand how industry roles, tools and analytics methods shape modern decision-making. Learners explore how organisations build data maturity, adopt AI responsibly and use analytical approaches to drive value, giving them a clear view of where data skills fit within a rapidly changing profession.

Working with Databases

This module gives learners foundational knowledge of database systems and organisational data infrastructure. They explore how structured data is stored, secured and governed, while developing confidence with SQL for querying, validation and automation. Learners also consider how AI enhances database processes, supporting more accurate, efficient and compliant data management.

Python for Data Insights

This module introduces learners to Python as a powerful tool for analysis, automation and insight generation. They explore key libraries for data manipulation and visualisation, work with APIs and experiment with AI-assisted scripting. By building practical coding confidence, learners enhance their ability to extract value from data in flexible and scalable ways.

Optimising Decision-Making

This module helps learners strengthen their ability to support decision-making through descriptive and diagnostic analytics. They explore how Excel, AI tools and statistical techniques reveal patterns, clarify problems and test scenarios. By applying structured approaches to modelling and evaluation, learners build confidence in guiding decisions with clear, data-driven reasoning.

AI-Augmented BI Solutions

This module helps learners design and optimise business intelligence solutions that combine AI-enhanced automation with thoughtful data modelling and visual storytelling. They explore interactive dashboards, transformation techniques and agentic AI, with a focus on creating intuitive, user-friendly experiences that support faster, more informed decision-making across the organisation.

Predicting Trends with Data

This module develops learners' capability to identify patterns and forecast future outcomes using statistical and analytical techniques. They explore hypothesis testing, regression, time-series forecasting and AI-enabled preprocessing to build reliable predictive models. The focus is on understanding model behaviour, evaluating performance and generating insights that support forward-looking business decisions.

Programme modules.

Applied AI and Machine Learning

This module develops learners' understanding of how AI-driven machine learning techniques support real-world classification, clustering and language-based tasks. They explore automated model building, AI-assisted selection and hyperparameter tuning, gaining practical insight into how to develop reliable, ethical and effective machine learning solutions that address business challenges.

Agile Data and AI Projects

This module introduces learners to the principles of managing data and AI projects in a structured, adaptable way. They explore scoping, stakeholder needs, life cycle alignment and compliance considerations, while gaining familiarity with Agile approaches. The focus is on delivering work that is transparent, secure and responsive to changing business requirements.

Ethical and Sustainable AI

This module helps learners understand the ethical, fair and sustainable development of AI systems. They explore governance, accountability and long-term environmental impact, gaining the ability to identify risks and promote responsible AI use. The focus is on building solutions that are transparent, inclusive and aligned with organisational values and societal expectations.

Delivering High-Value Products

This module brings together the knowledge and skills gained throughout the programme to develop a meaningful, business-driven data solution. Learners explore how to refine requirements, shape effective data products and communicate insights clearly. By aligning technical work with organisational priorities, they build confidence in delivering solutions that create measurable value.



AI Tools and Competencies

AI tools used on this programme:

- Excel
- Power BI
- Python
- SQL

Competencies gained with this programme include:

- AI-supported decision-making
- Using AI tools for scripting with GenAI and SQL
- AI scripting and debugging in Python
- Using Power BI AI features
- AI-supported forecasting using Python and Excel
- AI-assisted Natural Language Processing (NLP) and sentiment analysis



Required Tools

This course requires learners to have access to Microsoft Excel (ideally 2016 or later) and Power BI Desktop (free, no license required). Additionally, learners must have access to free generative AI (GenAI) tools such as OpenAI's ChatGPT, Google's Gemini, Anthropic's Claude, or Microsoft's Copilot.

As organisational policies on generative AI tools vary, learners must secure approval from their employer and confirm access before applying to this programme.

Transformative *technologies*.

Designed to make real-world impact, our on-demand, self-paced asynchronous modules build awareness of transformative technologies, with coverage of artificial intelligence and an evolving roadmap to explore digital twins, edge computing and other emerging technologies.

- ✓ Available to all learners at no extra cost
- ✓ Bespoke to BPP, developed by our expert data scientists
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Knowledge and skills gained

Focusing on practical application of technical and non-technical AI skills, the modules explore AI's capacity to optimise structured interactions, align governance frameworks, and deploy scalable solutions, with a significant focus on ethical considerations and operational efficiency.

- ✓ Ability to design and implement complex prompts for diverse use cases
- ✓ Understanding and application of HITL techniques and fact-checking principles
- ✓ Ability to conduct prompt A/B testing
- ✓ Understanding of AI governance frameworks and compliance requirements
- ✓ Ability to adapt AI messaging for different stakeholders
- ✓ Ability to assess AI ecosystems
- ✓ Understanding of API-driven generative AI (GenAI) benefits



Tools

Large language models (LLMs) (for example Copilot or Google Gemini)
No-code AI automation platforms (no prior coding knowledge required)

Optional masterclasses

 Live online sessions available every month

Example topics include:

- Data Leadership
- Ethical Hacking and Cyber Security
- Discovering and Analysing Market Trends
- Sustainable Technology and Green Computing
- Responsible AI
- Setting AI Strategy
- Emerging Landscapes – AI
- Quantum Computing Fundamentals

