

**ROLE OVERVIEW**

|  |
| --- |
| **Job Title: Data Scientist Apprentice** |
| **Apprenticeship Level: Level 6**  **Apprenticeship Duration: 36 months**  **Grade: £22,843 - £23,192 per annum**  **Line Manager: Chief Technology and Innovation Officer**  **Section: Information Systems** |
| **Directorate: Technology and Innovation**  The primary role of the Data Scientist Apprentice is to find information in diverse datasets to address complex problems and improve the College’s organisational processes. You will be inquisitive, explore and visualise data, find and present ‘stories’ within the data in a meaningful way to a range of technical and non-technical audiences.  You will be involved in making recommendations to inform strategic and operational decisions through sourcing, accessing and manipulating data. The Data Scientist will identify and address data biases, and handle private data ethically and appropriately, complying with GDPR  You will use insights gathered about the data to inform and achieve organisational goals.  **Entry Requirements**   * 5 GCSEs including English & Maths (Grade C/ 4 and above) * Level 3 qualification (equivalent to A Levels) * Work experience   **Technical Competencies**   * You will Identify and clarify problems that the College faces, and reformulate them into Data Science problems. Devise solutions and make decisions in context by seeking feedback from stakeholders. You will also apply scientific methods through experiment design, measurement, hypothesis testing and delivery of results. There will also be an element of collaboration with colleagues to gather requirements. * You will perform data engineering: create and handle datasets for analysis. Use tools and techniques to source, access, explore, profile, pipeline, combine, transform and store data, and apply governance (quality control, security, privacy) to data. * You will Identify and use an appropriate range of programming languages and tools for data manipulation, analysis, visualisation, and system integration. You will select appropriate data structures and algorithms for the problem and develop analysis. * You will use analysis and models to inform and improve organisational outcomes, building models and validating results with statistical testing. * The Data Scientist Apprentice will Implement data solutions. You will find, present, communicate and disseminate outputs effectively and with high impact through creative storytelling, tailoring the message for the audience and making recommendations. * You will develop and maintain collaborative relationships at strategic and operational levels, using methods of organisational empathy (human, organisation and technical) and build relationships through active listening and trust development. * You will use project delivery techniques and tools appropriate to your Data Science project and the College.   **Technical Knowledge and Understanding**   * Knowledge and understanding of the context of Data Science and the Data Science community in relation to computer science, statistics and software engineering. * Knowledge and understanding of how Data Science operates within the context of data governance, data security, and communications. How Data Science can be applied to improve an organisation’s processes, operations and outputs. How data and analysis may exhibit biases and prejudice.  How ethics and compliance affect Data Science work, and the impact of international regulations (including the General Data Protection Regulation.) * Knowledge and understanding of how data can be used systematically, through an awareness of key platforms for data and analysis in the College. * Understanding of Data-driven decision making and the good use of evidence and analytics in making choices and decisions. * Knowledge and understanding of advanced and predictive analytics, machine learning and artificial intelligence techniques, simulations, optimisation, and automation. * Understanding of development standards, including programming practice, testing and source control. The data landscape: how to critically analyse, interpret and evaluate complex information from diverse datasets: * Knowledge and understanding of the different sources of data including but not exclusive to files, operational systems, databases, web services, open data, government data, news and social media.   **Skills, Attributes and Behaviours**   * An inquisitive approach: the curiosity to explore new questions, opportunities, data, and techniques; tenacity to improve methods and maximise insights; and relentless creativity in their approach to solutions. * Empathy and positive engagement to enable working and collaborating in multi-disciplinary teams, championing and highlighting ethics and diversity in data work. * Adaptability and dynamism when responding to varied tasks and organisational timescales, and pragmatism in the face of real-world scenarios. * Adaptability and dynamism when responding to varied tasks and organisational timescales, and pragmatism in the face of real-world scenarios. * Problem solver * An impartial, scientific, hypothesis-driven approach to work, rigorous data analysis methods, and integrity in presenting data and conclusions in a truthful and appropriate manner. * . An impartial, scientific, hypothesis-driven approach to work, rigorous data analysis methods, and integrity in presenting data and conclusions in a truthful and appropriate manner * A commitment to CPD.   More information on the above can be found on the apprenticeship standard website. Link below:  https://www.instituteforapprenticeships.org/apprenticeship-standards/data-scientist-(integrated-degree)-v1-0 |
|  |

