Job Description – Senior Data Architect, CIO Portfolio

About the role

The effective use of data is key to the successful delivery of the Open University Strategic goals. Reporting to the Data Technology Director as part of the CIO Portfolio this is a key senior architecture role appointment to build and run the Data Technology Capability for the Open University. The successful candidate will be a thought leader in the data technology and architecture space with relevant experience in defining data technology strategies, technology operations, architectures, roadmaps and how to implement these successfully.

This is a time of great change and opportunity in the organisation to embed innovative ways of working and new technology adoption. The role will take ownership of a newly implemented Azure Data platform and lead its transition of this from successful change programme to a business-as-usual state that will enable continued growth and innovation with data.

As part of the Chief Data Office this role will work in partnership with the Data Management and Data and Student Analytics Functions to deliver an end-to-end data service to the University.

Key responsibilities

The Senior Data Architect will take ownership for:
- Data architecture activities within Data Technology Team, that works on behalf of the Chief Data Officer to have a strategic advisory role on all current and future data technology adoption.
- The engagement in an effective, collaborative, and strategic manner with the key stakeholders in the OU CDO and IT functions comprising of Enterprise Architects, Solution Architects, Data Management, Data Analytics and Data Science teams.
- Leading the design, development, implementation and maintenance of complex cloud-based data systems and solutions to support BI & Data Science use cases
- Creation and maintenance of current- and target-state data architectures for OU
- Ensuring that technology solutions are in alignment with data architecture principles and target state
- The simplification of the existing data architecture, delivering reusable services and cost saving opportunities in line with the OU’s policies and standards.
- Setting direction and control over data specialists to undertake the delivery of comprehensive data-centric projects in OU. Providing mentoring and coaching for technology specialists across Data Technology functions
- Leading and participating in the peer review and quality assurance of project architectural artifacts across architecture group through governance forums. Reporting key architecture decisions and implications to the architectural governance forums
- Identification and communication of appropriate resource requirements and work breakdown structure based on skills profile and best fit to complete the end-to-end solution design, and working with the project manager to ensure that project plans and finances align with the design
- Evaluating and recommending emerging technologies for data management, storage, and analytics
- The development of Data Architecture artefacts for OU including enterprise data model(s) in partnership with other architects in IT and CDO functions.
- Participation from time to time in the supplier selection process, evaluating usefulness and cost of products and making appropriate recommendations

The primary focus for the initial phase of the role will be to:
- Providing architectural support and guidance to Data & Analytics projects that are critical to deliver OU’s strategic goals
- Create and maintain current- and target-state data architectures for the Data & Analytics platform (on Azure cloud)
- Simplify the existing data architecture, delivering reusable services and cost saving opportunities in line with the OU’s policies and industry best practices
- Engage the OU governance forums to implement an effective use of Data Technology and establish the Data Architecture practices that the OU needs that work in tandem with existing governance practices.

Skills and experience

The successful candidate will have a proven track record in:

- Implementing on-premise as well as cloud-based data solution architecture for a large enterprise with practical experience in relational databases, ETL tools and programming languages (SQL, Python, pySpark, java)
- Relating architectural decisions and recommendations to business needs
- Building data and analytics solutions leveraging diverse traditional database technologies (e.g., SQL, Oracle, Hadoop, Teradata) and modern cloud-based storage solutions (e.g. AWS s3, ADLS, Synapse, RedShift).
- Implementing enterprise grade BI and Reporting platform with practical knowledge of BI tools (e.g. Tableau, Power BI, Looker)
- Delivering data models for Data Warehouse following industry best practices and different design methodologies.
- Developing reference architecture, principles, and standards
- Technical ability to predict and advise on future technology roadmap for the organisation to deliver business benefits.
- Translating data and security related regulatory mandates into actionable technology solutions
- Defining methods and approach to large scale and complex change solutions
- Working in a large and complex organisation where stakeholder engagement and collaboration are key to success.
Desirable:

- Certified as Cloud Architect or Cloud Data Engineer from reputed public cloud.
- Knowledge and practical experience of cloud-based Machine Learning/Data Science offerings in GCP, AWS and Azure including MLOps
- Knowledge of Data Management framework (DAMA), Master Data Management, Data Governance & Data Quality Management
- Understanding of infrastructure and container-based deployments (docker, Kubernetes)
- Knowledge and practical experience of Service Oriented Architecture (SOA), API management and NoSQL databases (document, wide-column, and graph databases)

Key Relationships:

- The Data Tech Team – Developers, Delivery Manager, Lead Data Engineer and Data Tech Director
- The wider CDO functions – Data Management, and Data & Student Analytics
- The wider CIO portfolio – IT (architecture, technology implementation, operationalisation), Learning Experience (data solutions for student experience initiatives), CISO, and Strategic Programmes
- Data Stakeholders across the OU, with specific focus on KMI (Knowledge Media Institute) and IET (Institute of Educational Technology).
- 3rd party service and software providers.