

Job Description

Job title: Data Modelling (KTP Associate)

Faculty/Directorate: Business and Law

Grade: E (£32,080 – £33,951) Role profile: SSE4

Full time (37 hours per week) Fixed term (12 months)

	Duties of the role
Overall purpose of the role	<p>This post is co-funded by Innovate UK's Knowledge Transfer Partnership (KTP) scheme and Utility Trade Ltd.</p> <p>The post-holder will:</p> <ul style="list-style-type: none"> • work alongside a Software-focused KTP Associate (KTPA1) to build a next-generation, AI-enabled customer relationship management (CRM) platform for the energy services sector. • lead the design, development and embedding of a robust data architecture, predictive analytics pipeline and enhanced reporting capability that will allow Utility Trade to deliver real-time energy insights and AI-driven forecasts to its clients. • combine advanced technical delivery with knowledge transfer to permanently upskill the relevant staff within Utility Trade.
Main duties and responsibilities	<ul style="list-style-type: none"> • Audit and profile data from CRM, billing systems and supplier APIs; produce data-quality and risk reports. • Define success KPIs and maintain the project data management plan. • Design a secure, scalable ingestion and storage architecture. • Author and automate ETL/ELT scripts; validate pilot data-flows. • Select and tune forecasting algorithms (time-series, ensemble / deep-learning) • Deploy baseline models and iterate for accuracy with external factors (e.g., weather, macro-indicators). • Prototype and iterate dashboards; implement automated alerts and anomaly-detection. • Run workshops for Utility Trade staff; create technical manuals, data dictionaries and SOPs to embed capability. • Maintain project timeline, milestone and risk register; present progress at Local Management Committee meetings. • Contribute to meetings and scholarly dissemination linked to the KTP.

	Duties of the role
	<p>Perform any other duties commensurate with the job grade as reasonably required from time to time.</p> <p><i>Act in accordance with DMU Values:</i></p> <ul style="list-style-type: none">• Collaborative – Work together to achieve joint outcomes, understand how your work contributes to DMU, and be aware of your personal impact on others.• Compassionate – Be open, honest, and caring, work on a basis of trust, and hold yourself accountable for your actions.• Creative - Strive for better, challenge bureaucracy, explore digital solutions, and innovate creatively.• Community minded - Embrace alternative views, treat others with respect, and tackle inequalities. <p>Treat all DMU staff, students, contractors and visitors with dignity and respect. Provide a service that complies with the Equality Act 2010, eliminating unlawful discrimination, advancing equality of opportunity and fostering good relations with particular attention to the protected characteristics of age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief (or none), sex and sexual orientation.</p> <p>All members of staff are responsible for their contribution to improved environmental performance and in reducing greenhouse gas emissions at DMU. It is therefore required that all members of staff are aware of how the Environmental Policy relates to their own role at the University. Staff conduct must reflect the values inherent in the Environmental Policy and where required staff must cooperate with environmental compliance and conformance requirements to help minimise our emissions to air, water and land.</p> <p>The postholder should have a positive attitude towards health and safety, and be aware of and comply with all health and safety policies for the university, as applicable. There will be a requirement to complete all mandatory health and safety training as deemed to be relevant for the position held. The postholder is expected to help maintain a safe working environment for staff, students and visitors by working closely with the local safety coordinator as required. Any accidents or dangerous incidents must be reported promptly through the university's reporting system.</p>

Person Specification

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Area of responsibility	Requirements	Essential or desirable		*Method of assessment			
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Qualifications & Training	Good honours degree in Data Science, Computer Science, Statistics or similar	Essential		✓			✓
	Higher degree (MSc/PhD) in a relevant field <i>or</i> equivalent industrial experience		Desirable	✓	✓		✓
	Evidence of continued professional development (e.g., AWS DEA-C01, AWS AIF-C01, Microsoft DP-700)		Desirable	✓	✓		✓
Previous Work Experience	Designing and operating data pipelines (ETL/ELT) in production	Essential		✓	✓		
	Building and deploying machine learning or time series models	Essential		✓	✓		
	Stakeholder-facing delivery within agile projects		Desirable	✓	✓		
Technical Ability	Strong Python/R/SQL coding skills; familiarity with NoSQL and cloud services	Essential		✓	✓	✓	
	Experience with ML frameworks (e.g., scikit-learn, TensorFlow/PyTorch) and MLOps tooling	Essential		✓	✓	✓	
	Experience with large-language-model orchestration frameworks (e.g., LangChain ≥ 0.10, LangGraph) and hands-on use of state-of-the-art LLMs (e.g., GPT-4 or Gemini 1.5)		Desirable	✓	✓		
	Strong data visualisation and dashboard development skills (e.g., Power BI, Plotly, React-based dashboards)	Essential		✓	✓	✓	

Area of responsibility	Requirements	Essential or desirable		*Method of assessment			
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	Competent understanding of software security and GDPR principles	Essential		✓	✓		
	Excellent analytical, presentation and report-writing skills, including ability to translate complex analytics into plain-English insights for non-technical stakeholders	Essential		✓	✓	✓	
Additional Requirements	This role is subject to a DBS check, the level of DBS check will be determined at offer stage.	Essential			✓		
Our Values and Behaviours at DMU							
We are Collaborative – we work together to get things done	We support each other to achieve joint outcomes We understand how our work contributes to DMU We are aware of our personal impact on others	Essential			✓		
We are honest and Compassionate	We are open, honest and caring We work on a trust basis We hold ourselves accountable for our actions	Essential			✓		
We are innovative and Creative	We constantly strive for better We challenge bureaucracy and explore digital solutions We are innovative and creative	Essential			✓		
We are a community – we value and champion difference	We embrace alternative views We treat others with respect We tackle inequalities	Essential			✓		

***A = Application Form; I = Interview; T = Test; D = Documentary Evidence**