

ROLE PROFILE

Job family	Organisational Support	Role profile number	OS15-2599	Grade O
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Job purpose: Provide authoritative and recommended advice on a specialist area for the council and / or partners to ensure proper compliance. Advice and support to teams/service/partners on a range of topics in order to further the achievement of the council's visions, goals and core values.

Grade O posts are higher in 'Decisions & Consequences' compared with grade N posts as these posts lead in advising and delivering specialist service areas, acting as a recognised lead professional and point of contact in the relevant field. These posts are also higher in 'Knowledge & Skills' requiring significant post qualification experience at a technical/professional level as they lead complex and diverse areas of work.

Factor	Relevant Job Information
Supervision and/or Management of People	No full management of a team but will be required to monitor the quality and quantity of the work of others. Will provide advice, guidance and support to colleagues to ensure whole team achievements are met. May be required to project manage a team or specialist staff across service areas and external partners.
Indicative qualifications	Masters Degree in relevant profession, or equivalent experience/skills. Licence / certificate / qualification required for the role. ITQ 2 or equivalent ICT skills and abilities demonstrating significant experience in related systems.
Knowledge and Skills	Substantial relevant experience as a professional expert in a large complex organisation within a related specialist field. Organisational expert in the area of specialism. Significant experience of leading complex and diverse areas of work involving a wide range of contacts which has a high impact on the organisation, community and partners. Expert knowledge of relevant policy, systems, work practices, professional guidelines, legislation and a good understanding of emerging developments in the area of specialism. Excellent ICT skills including use of Microsoft applications and specialist systems. Excellent understanding of emerging developments within the scope of the specialist area. Extensive knowledge of local government and wider sector / external influences. Authority and credibility to build relationships and engage successfully with colleagues, partners and customers. Excellent persuasion and negotiating skills, in order to motivate people and partnerships and influence outcomes critical to the organisation. Proven ability of managing significant budgets and resources. Substantial experience of defining and developing systems, policies, procedures and / or practices and contributing to strategy development. Extensive experience of managing change effectively in a variety of functional and business environments. Proven ability to apply high levels of initiative and strategic awareness to problem solving and decision making. Excellent time management skills to manage a complex workload prioritise and set deadlines. Excellent leadership skills to inspire and motivate people they will be in contact with as part of their delivery of their work.
Creativity and Innovation	Creative problem solving of issues, proactively anticipate problems and deliver solutions which enhance the quality and efficiency of services and the reputation of the council. Think and act strategically in problem solving and decision making in a complex political and business environment. A level of discretion is required in deciding what course of action to take and how to operate within the policy framework. Job holders will be required to contribute to long term strategies. Will be required to plan over a longer period (a year or more). Lead initiatives to design and deliver improvements and transformation. Manage projects or contribute to larger organisation wide programmes.
Contacts and Relationships	Provide advice and guidance to senior managers and the leadership team on a broad range of complex issues which could be contentious and challenging in nature. Ability to build strong relationships and engage successfully with colleagues /partners /customers / contractors and suppliers.

	<p>Confident and expert at negotiation and advocacy, displaying tact and diplomacy to deal with complex situations. Ability to make difficult decisions to resolve issues and improve service delivery. Regular contacts will include: Senior managers, leadership team, councillors, external bodies and partners.</p> <p>Consult with service users / stakeholders / partners to understand issues and challenges and provide recommendations for solutions.</p> <p>Manage relationships with customers, partner organisations and / or suppliers – monitor inbound and outbound service levels: discuss operational issues with partners.</p> <p>Lead professional and point of contact to provide technical specialist solutions.</p> <p>Apply good judgement, sensitivity and diplomacy required in all dealings with others.</p> <p>Be a representative on behalf of the Service area / Council internally and / or externally.</p>
Decisions – Discretion & Consequences	<p>Make decisions on complex business or politically sensitive issues within the specialist area. Make, or influence, business decisions in line with the business plan based on professional expertise, experience and analysis and evaluation of information.</p> <p>Major responsibility for monitoring and evaluating important policy or service practice, making recommendations for change across the service and organisation.</p> <p>The consequences of the decisions will have a major impact across the organisation, community and partners.</p> <p>Authoritative lead in recommending the delivery of a specialist service area, shaping responses which feed into service plans / strategies and policies.</p> <p>Promote and deliver continuous improvements as required in the role. Identify additional service / council requirements or opportunities for innovation to establish new ways of working and recommend innovative solutions.</p> <p>Design, develop and implement solutions to improvement of core systems, business processes, project solutions, policies, procedures and associated governance frameworks.</p> <p>Deliver effective financial and resource management for the area of responsibility. Where appropriate, matrixes manage resources from across a range of service areas / partner or external organisations.</p> <p>Plan and deliver the services required in the area of responsibility, ensuring integration with the wider council plan and compliance with all internal and external standards. Manage or monitor contractual compliance as required.</p> <p>Monitor and report on service standards as required.</p>
Resources	Little or no responsibility for physical or financial resources.
Work Demands	Work subject to interruptions and deadlines, involving changing problems, circumstances or demand.
Work Environment	Office based, but may involve some travelling to other council buildings.
Our Identity	<p>Our Identity sets out who we are and provides a shared understanding of how we are all expected to lead, work and act with each other, our partners and our residents to deliver our services and build stronger communities. They enable us to continually evolve and adapt to meet the changing needs of our residents and ensure that we continue to deliver great services and make a difference to the people of Wiltshire.</p> <p>All of us are expected to demonstrate the elements of Our Identity in how we work to shape and create the organisation we want to be part of. It should influence our decisions, activities, projects and ways of working</p>
Health & Safety	All employees are required to carry out all duties and responsibilities with reasonable care for the health and safety of self and others and report any potential hazards or unsafe practices to their line manager.
Equalities	Wiltshire council is committed to ensuring employees do not discriminate against colleagues, suppliers or third parties at work or harass or victimise others. Incidents of discrimination at work are taken seriously and employees are encouraged to report incidents via their manager or anonymously via the whistleblowing policy .
Authority to work in the UK	All employees must have the legal authority to work in the UK. Non-EU nationals must have the relevant approval to work in the UK from the UK Border Agency. Copies of all documents provided as proof of identity are retained for our records, by providing these proofs the council will treat this as consent.

The above profile is intended to describe the general nature and level of work performed by employees in this role and does not detail a list of all duties and responsibilities. The Council reserves the right to amend this role profile as necessary.

ROLE DESCRIPTION

Role description:	Data Scientist (Natural Language Processing)	
Role profile family:	Organisational Support	
Role profile number and grade:	OS15-2599	Grade O
Number of posts:	1	
Service/Team:	Data & Insight, Transformation	
Reports to:	Head of Data & Insight	

Job Family overview

Organisational support job family overview:

Delivery of services to support the Council and its partners in longer term, corporate compliance, contracting, planning, performance, policy and strategy.

- Focus on the business and service infrastructure of the Council and its partners to ensure effective management and proper compliance.
- Advice and services rendered will generally be accepted as authoritative and recommended practice.
- Specialist area and/or management knowledge.
- Understanding area concepts and plans.
- Defining implications of external influences and trends.
- Shaping of Council responses including service plans/strategies & policies.
- Definition & management of strategic planning processes.
- Monitoring and reporting of performance.

Service / function Context

The Data & Insight team works collaboratively with Council services and external partners to improve confidence in data and embed a culture of data-driven decision making. Our team provide a focal point from which we build and explore our data culture, behaviour, and capabilities for Wiltshire Council.

To us, data is the nervous system of the council and the second most important asset we have behind our people. D&I are committed to providing a reliable, innovative, and user-centric data capability for all; fostering a culture of evidence-based decision making to deliver the best outcomes for our citizens. Our work is fundamental to the success of the council's Transformation agenda and will act as a crosscutting theme of development across all service areas.

The overall mission of the Data and Insight team is:

- To empower our staff to innovate and collaborate to deliver great value to stakeholders.
- To develop business insight capacity for, and create a culture of, data-driven decision making. Evidence informed, not metric led.
- To implement technology and processes that provide insight and evidence to support decision making, improve performance and delivery of business plan priorities.
- We will enable organisational insight to support evidence-based decision making and policy development. This will be achieved by providing detailed knowledge, expertise in the areas of data governance and data analytics, enabling and supporting data owners and data consumers within the services to help them manage their data and gain insight that are valuable to their individual operations. We will also provide data analytics and insight services at a corporate level to provide the insights needed to support organisational decision making.

Job Purpose

The use of data to provide business insights to support decision making is an emerging and fast evolving area within Wiltshire Council with an organisational goal to shape our future through insight. As we explore how to drive business value through data science, demand has steadily grown for natural language processing support.

The Natural Language Processing (NLP) Data Scientist is a key player in the Data & Insight team. This role is pivotal in harnessing the power of natural language data to drive decision-making and service enhancement. The focus is on developing and applying sustainable NLP techniques to analyse and interpret complex data sets. The role contributes to the Council's mission by:

- Developing advanced NLP models to extract insights from unstructured data.
- Collaborating with different teams to integrate NLP insights into decision-making processes.
- Ensuring the ethical use of NLP techniques in compliance with data privacy and protection standards.
- Promoting innovation in the use of machine learning and AI for enhancing public service delivery.
- Promoting NLP methods across council services to ensure we leverage this skill to understand the 'resident voice'.

The NLP Data Scientist will play a transformative role in leveraging language data for actionable insights. This role demands a blend of technical expertise in NLP and machine learning, along with a keen understanding of public service contexts.

Key responsibilities include:

- Designing and implementing NLP systems for data analysis and insight generation.
- Collaborating with cross-functional teams to integrate NLP solutions into business processes.

- Democratising NLP vocabulary within the analytical community
- Conducting advanced statistical analysis to inform data-driven decisions.
- Ensuring the accuracy, reliability, and ethical use of NLP methodologies.
- Providing strategic guidance on NLP initiatives and data strategy alignment.
- Leading efforts to foster a culture of innovation and continuous learning in data science.
- Leveraging LLM and Open AI API to automate NLP operations.
- Upskilling analysts for specific NLP methods.
- Being an advocate for data science within the council in general, supporting the services to understand where and when it can add value to its processes.
- Promote Wiltshire Councils data science journey within the public sector, attending national events and networking with other data professionals in other organisations.
- Work with BI Developer and Data Engineer colleagues to optimise data collection processes and data quality to ensure robust NLP analysis and interpretation of results.
- Participate in the design and execution of experiments and studies, providing data driven NLP insights to shape research objectives and strategies.
- Advise Head of Data & Insight of sector developments and future requirements for NLP Ops development.
- Maintaining and improving our product suite: training models, updating underlying technology, and working with the product team to develop new features.
- Training text classification models.
- Experimenting with new modelling approaches and presenting meaningful results clearly to both technical and non-technical audiences.
- Working with domain experts to understand customers' needs and problem specifications.
- Maintaining and developing anomaly detection methods for risk management.

The role will cover a diverse range of approaches, including projects with unstructured data, raw text, speech, and images, as well as traditional structured data problems.

Specific requirements for this post:

None

Person Specification

Specific qualifications, knowledge, and skills required for this role:

Essential

Education and qualifications

- Degree in Computer Science, Data Science, Linguistics, or related field with a focus

on NLP or AI or Relevant certifications or proven experience in NLP and machine learning.

Technical Skills

- Proven NLP experience, including topic clustering, text classification and sentiment analysis, and experience with other unstructured data problems.
- Proficiency in Python.
- Experience with NLP frameworks like NLTK, SpaCy, or TensorFlow.
- Knowledge of a range of topic modelling methods.
- Strong background in statistical analysis and data modelling.
- Translation methods.
- Ability to write clear, well documented, robust, and testable code.

Personal Skills

Whilst you enjoy research and investigating solutions, you keep an equal focus on delivering business value. Equally, you enjoy learning about the business needs and working with a range of stakeholders.

- Engage, communicate, and form relationships effectively with high level stakeholders as the lead professional and point of contact for NLP.
- Proven track record of innovative problem solving.
- An ability to understand sentiment and perceptions from what is said or written from end users.
- Develop and maintain value analysis tools for strategic and value-driven decisions.
- Ability and skill to act as a change agent, driving forward the changes which are required to drive improvement and stay compliant with legislation.
- Proven experience of being able to relate and communicate effectively verbally and in writing, with a wide range of audiences including system users, professional staff and senior managers in various agencies.
- Effective time management skills to respond to complex and constantly changing work priorities to manage own and team's workflow.
- Experience of delivering quality outputs with limited resources.
- Creativity to find problem-solving solutions.
- Personable with strong persuasive and negotiating skills.
- Up to date knowledge of relevant legislation and guidance in relation to working with information systems e.g., GDPR, consent and information sharing.
- Ability to have challenging conversations with services about resource utilisation.
- Ability to develop & supervise other data analysts as required.

Desirable

Education and qualifications

- Experience of Agile principles and Scrum methodology.

Technical skills

- Experience with recurrent neural networks and word embedding techniques such as word2vec is beneficial.
- Proven experience using supervised learning techniques such as GLM's, random forests, or gradient boosted ensembles.
- Experience of Deep Learning techniques (e.g., PyTorch) / applications of Deep Learning Graph/Network theory within NLP
- Experience with statistical analysis.
- Experience of developing NLP pipelines within Azure Machine Learning Studio.
- Familiarity with data visualisation tools such as Power BI, D3.js and Adobe Illustrator.
- Experience working in a Big Data environment, dealing with large diverse data sets.
- Familiarity with using Python in cloud services and big data platforms.
- Knowledge of additional languages or linguistics.
- Experience in public sector data projects.
- Ensure the maintainability and scalability of data solutions through containerisation using DOCKER.
- Ability to query LLM API's such as Open AI.
- Proven experience with Hugging Face Transformers.

Career graded posts

This post does not form part of a career grade.

Supporting information

Driving classification	
Occasional driver A valid UK driving licence is not required. Occasionally may need to travel to different locations in order to undertake the duties of the role.	<input checked="" type="checkbox"/>
Regular Driver Must hold a valid UK driving licence and have access to either their own car or a pool car in order to undertake the duties of the role, unless other forms of transport are available and viable to perform the role, including public transport, or unless a reasonable adjustment has been agreed.	<input type="checkbox"/>
Required Driver Must hold a valid UK driving licence and will drive a vehicle supplied by the Council in order to undertake the duties of the role.	<input type="checkbox"/>
Employees should refer to the Corporate Driving at Work policy for further information.	

Driving trigger points			
The trigger points set out below, regarding driving licence points and at-fault accidents, apply to all staff who drive on council business.			
Trigger Points	Corrective Driver Training Course or further action	Additional corrective training if appropriate or further action	
Points on driving licence	6	9	
Trigger Points	Discussion and advice on expected driving standards	Corrective Driver Training Course or further action	Additional corrective training if appropriate or further action
At fault accidents within a two-year period (whether work or personal)	1	2	3
<p>Job applicants who drive must have 9 or less points on their driving licence, and must have less than 4 at fault accidents within a two-year period. If they meet the trigger points, they will be subject to the actions outlined in the table above.</p> <p>If holding a valid licence, occasional drivers will need to declare penalty points and no-fault accidents as requested. Depending on the role, decisions as to whether this might either affect appointment or require corrective driver training, will be made case by case.</p>			

Political restriction	
This role is politically restricted. The job holder is not permitted to undertake political activity involving standing for election as a member of parliament, as a member of the Scottish or Welsh Parliaments, or a local councillor. The job holder is furthermore not permitted to canvass on behalf of a political party or a person who is already, or who seeks to be, a candidate. In addition, they may not speak to the public or publish any written or artistic work that could give the impression they are advocating support for a political party	<input type="checkbox"/>
This role is not politically restricted	<input checked="" type="checkbox"/>

Professional fees and related occupational costs
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As part of this role, or to support professional development, the job holder is required to be a member of a professional body or association. The job holder is responsible for payment of all professional fees, memberships, registrations or subscriptions and no reimbursement or contribution towards these will be provided by the council	<input type="checkbox"/>
This role does not have any professional or occupational membership requirements	<input checked="" type="checkbox"/>

Clearances – Disclosure & Barring Service (DBS)

This role will be engaged in 'regulated activity' providing specific services relating to children or vulnerable adults and is subject to a Disclosure from the Disclosure and Barring Service.	<input type="checkbox"/>
This role is exempt from the Rehabilitation of Offenders Act 1974 and will require an Enhanced DBS check before appointment can be confirmed.	<input type="checkbox"/>
This role is exempt from the Rehabilitation of Offenders Act 1974 and will require a Standard DBS check	<input type="checkbox"/>
The role requires a Basic DBS check to check for convictions and cautions that are considered to be unspent under the terms of the Rehabilitation of Offenders Act 1974.	<input type="checkbox"/>
This role is not subject to a Disclosure from the Disclosure and Barring Service in order to undertake the duties of the role.	<input checked="" type="checkbox"/>

Clearances – Baseline Personnel Security Standard (BPSS)

This role requires access to the UK government Public Services Network (PSN) and is subject to a BPSS check	<input type="checkbox"/>
This role is not subject to a BPSS check	<input checked="" type="checkbox"/>

Clearances – Non-Police Personnel Vetting (NPPV)

This role requires working in partnership with the police, and/or having access to Police related systems and is subject to a NPPV check at level 2* . (*regular access to police premises and police information, intelligence and financial or operational assets. Occasional access to those deemed 'secret').	<input type="checkbox"/>
This role requires working in partnership with the police, and/or having access to Police related systems and is subject to a NPPV check at level 3* (*regular unsupervised access to police premises and/or access to police information and/or information systems and/or hard copy material either on police premises or by remote access up to "secret" level. A level 3 includes a check on you, your spouse/partner, co-residents, and all family members).	<input type="checkbox"/>
This role is not subject to a NPPV check	<input checked="" type="checkbox"/>

Safeguarding

For all roles within Children's Services. Wiltshire Council is committed to safeguarding and promoting the welfare of children, young people and vulnerable adults and all staff are expected to share this commitment. You will be expected to report any concerns relating to the safeguarding of children, young people or vulnerable adults in accordance with agreed procedures. If your own conduct in relation to the safeguarding of children, young people or vulnerable adults gives cause for concern, the council's agreed child protection/vulnerable adults protection procedures will be followed.	<input type="checkbox"/>
For all roles within Adult Social Services. Wiltshire Council is committed to safeguarding and promoting the welfare of vulnerable adults and all staff working for the council are expected to share a commitment to this. You will be expected to report any concerns relating to the possible abuse of a vulnerable adult in accordance with the agreed interagency safeguarding adults' procedures. If your own conduct in relation to the safeguarding of vulnerable adults gives cause for concern, the council's agreed interagency safeguarding adults' procedures will be followed, alongside implementation of the council's disciplinary procedure. The job holder is accountable for their safeguarding of vulnerable adult responsibilities to their line manager.	<input type="checkbox"/>
For all other roles within the council. Wiltshire Council is committed to safeguarding and promoting the welfare of children, young people and vulnerable adults and all staff are expected to share this commitment. You will be expected to report any concerns relating to the safeguarding of children, young people or vulnerable adults in accordance with agreed procedures. If your own conduct in relation to the safeguarding of children, young people or vulnerable adults gives cause for concern, the council's agreed child protection/vulnerable adults protection procedures will be followed.	<input checked="" type="checkbox"/>