



THE ROLE

Senior Data Engineer

Department:	Performance and Analytics
Role Code:	
Grade/Role:	10
Responsible to:	Head of department
Responsible for:	Data scientist + Engineer (2 FTE)
Date Revised:	October 2024

Job Purpose:

To protect and prevent loss of life, property, and the environment for Essex County Fire & Rescue Service (ECFRS) by providing service wide support for all data, including storage, processing and warehousing. Deliver value to the Service using any relevant data assets. Create an environment of innovation and growth for less experienced members of the team, to support them in also improving the use of data in ECFRS.

Main Duties and Responsibilities:

1. Build reusable data assets:

- **Be able to guide the team** to transform data to generate stable and repeatable data models for the entire service.
- Ensure code is legible for future teams and recycling.
- Be the owner of ECFRS data pipeline end to end.
- Evaluate the current tech stack and find suitable alternatives.

2. Deliver added value to the service using data products:

- Use the latest available technology to **review and optimise the teams' solutions** that solve problems in the Service using data.
- Focus on maintainability, efficiency, and overall positive outcomes for the customer.

Role Profile

- Take ownership current estate of products and optimise to minimise overhead involved in creating products.

3. Define quality standards for data:

- Set definitions of metrics and minimum acceptance criteria for customers (UAT)
- Assure and define data quality metrics for the Service,
- Use data quality metrics to evaluate the performance of a source and track the effectiveness of changes.

4. Collaborating with Service departments:

- Maintain relationships across the service to provide a consistent quality delivery.
- Gather requirements from senior leaders, provide a space to help accurately express their requirements.

5. Optimise and improve dataflow:

- Explore possibilities for optimising ELT processes for better performance or maintainability.

6. Develop the team:

- Line management responsibilities.
- Be a contact point for data infrastructure and data science best practices.
- Build an environment that encourages transparency and innovation.
- Provide support to less experienced members of the team.
- Support team goals and encourage each team member create focussed personal challenges that lead to growth.
- Support the onboarding process for new hires, get them acquainted with data, policies, and procedures.
- Highlight areas for improvement and suggest training packages when required.
- Set a good example; be a role model for junior members. Uphold standards for the team and encourage best practise.

Role Profile

- Delegate tasks to team members balance volume with capabilities

7. Prioritisation and decision making:

- Prioritise against Service needs short and medium term; direct resource accordingly to meet deadlines and targets.
- **Negotiate with senior leaders** to meet demand, balancing other projects and other team members BAU.
- **Work with senior leaders to find how to answer data issues** that are being faced by the Service.
- Find, structure, and agree insightful projects that the team can deliver.

8. Project planning and vision:

- Define internal projects based on Service requirements and objectives.
- Provide project updates on a consistent basis to senior leadership about strategy, adjustments, and progress.
- Scope out and evaluate requirements from senior leadership to construct clear project plans in line with agile methodologies.
- Engage with senior leadership to understand and develop the Service's vision for the use of data.

9. Data science and advanced analytics:

- Support and shape the creation/expansion of a data science platform
- Support the creation of predictive methods and other advanced analytic tools.
- Provide guidance of best practise for running data science projects and methodologies.