

Position details

Title of Position:	Data Scientist
Reports to (position title):	Manager Network Transformation
Division:	Network
Function:	Network Systems Transformation
Number of Direct Reports:	Nil
Grade:	4

Health, Safety & Wellbeing

ElectraNet is committed to co-creating a workplace of choice and enriching the communities in which we operate.

As an industry leader, ElectraNet is at the forefront of the clean energy transition. We are socially and environmentally ambitious, and our continued commitment to developing, operating and maintaining our network in a way that creates opportunities for people and nature to thrive is essential to achieving our vision of energising South Australia's Clean Energy future.

Our commitment also drives our focus to create a physical and psychosocial environment that supports the health, safety and wellbeing of our people.

We all contribute to ElectraNet's workplace culture and have a duty of care to ourselves and one another to work safely, assess and manage risk, courageously speak up and promptly report any unsafe working practices, hazardous working conditions or security threats and to collectively learn and grow from every opportunity.

Position Overview

The Data Scientist develops and maintains data, analytics and software solutions that improve the efficiency, quality and timeliness of engineering decision-making across the Network Division. The role works closely with power system engineers and leaders to identify opportunities, gather requirements and deliver fit-for-purpose automation, analysis, visualisation and reporting solutions.

Success in this role is characterised by strong programming, mathematical, statistical and data-analysis capability; disciplined software engineering practice; and the ability to work across multiple data sources and power system study applications. The role applies these capabilities in accordance with ElectraNet's Responsible AI, Acceptable Use and Data Governance frameworks.

Key Responsibilities

Working under general supervision, the Data Scientist will be responsible for:

- Identify and deliver opportunities to automate repetitive engineering and analytical tasks across the Network Division.
- Use data science, mathematical, statistical and software development concepts to identify, investigate and respond to divisional issues.
- Work with stakeholders to gather and document requirements, define acceptance criteria and translate business and engineering needs into fit-for-purpose solutions.

- Develop scripts, code and tools to query, collect and integrate data from databases and other controlled data sources for automated analysis and reporting.
- Develop interfaces and automation for power system study applications to support repeatable studies, efficient analysis and reproducible results.
- Apply defensive programming practices, including input validation and sanitisation, exception handling, logging and appropriate error recovery.
- Design and perform software testing, including validation of analytical outputs, and maintain supporting technical documentation for development, testing, deployment and ongoing support.
- Develop user documentation and provide knowledge transfer to support the safe and effective use of tools and automation.
- Use data visualisation tools such as Power BI to integrate multiple data sources and create dashboards that communicate divisional objectives, performance and ongoing benchmarking.
- Use software version control and agreed development practices to maintain traceability, collaboration and controlled release of code.
- Track progress on assigned technical work packages and continuous improvement initiatives.
- Perform other duties commensurate with the role's skills and classification level.

Operational & Technical

- Maintain effective records, software repositories and technical documentation in accordance with business requirements.
- Produce solutions that are maintainable, tested, secure, reproducible and appropriately governed.
- Collaborate with engineering, innovation, data governance, cyber security and technology teams when developing or deploying solutions.

Behavioural

- Build and maintain strong working relationships with and between internal and external stakeholders, delivering a high level of customer service and contributing to continuous improvement of ElectraNet's data, analytics and AI/ML capability.
- Create and develop a respectful workplace environment that values cultural diversity, innovation, open discussion and cross functional collaboration to help drive high performance.
- Lead by example; role model desired behaviour and priorities, demonstrate personal accountability for self-development and for achieving quality and timely result.
- Demonstrate behaviour that is consistent with ElectraNet's values, Code of Conduct and Acceptable Use of Technology Resources Policy while performing the role in a professional and ethical manner.
- Promote safe work practises that support the safety of all workers and the security of ElectraNet's assets, proactively reporting safety incidents, near misses and security threats.

Significant Working Relationships

- ElectraNet power system engineers and Network Division teams
- ElectraNet leaders
- Innovation, data governance, cyber security and technology teams
- External vendors and specialist service providers

Equipment & Technology Used

- Programming and analytical languages such as Python, SQL, C#, Java, MATLAB and Visual Basic.
- Power system study applications and their scripting or automation interfaces.
- Data visualisation and automation platforms such as Power BI and Power Automate.
- AI/ML platforms and developer tools, including Azure Machine Learning and relevant Python SDKs.
- Version control and development platforms such as Git, GitHub and Azure Repos.
- File and records management systems such as SharePoint and OpenText.
- Microsoft Office suite.

Selection Criteria

Knowledge & Experience

Essential

- Demonstrated programming and scripting capability, particularly using Python and SQL, with the ability to work across other high-level languages and platforms as required.
- Demonstrated application of data science, mathematical and statistical principles to diverse engineering or operational problems.
- Experience gathering and documenting requirements and translating them into fit-for-purpose technical solutions.
- Experience in software testing, validation, technical documentation and controlled deployment or release practices.
- Knowledge of defensive programming, including input validation, exception handling and robust error management.
- Experience using version control in a collaborative development environment.
- Strong analytical, investigative and critical-thinking skills, with the ability to identify root causes and develop practical solutions.
- Demonstrated ability to identify and deliver process efficiencies through automation.
- Experience integrating, querying and analysing data from multiple sources, including databases.
- Ability to build collaborative relationships and communicate technical outcomes clearly to technical and non-technical stakeholders.
- Strong attention to detail, planning and organisational skills, with the ability to manage competing priorities.

Desirable

- Flexible approach to working hours and after-hours commitments.
- Minimum two years' experience in an engineering, analytical, data science or software development role.
- Strong Agile/Scrum background in a continuous integration and continuous delivery/deployment (CI/CD) environment.
- Experience with Power BI and integrating multiple data sources to create dashboards and benchmarking reports.
- Knowledge of signal processing and time-series analysis, including resampling, timestamp alignment, aggregation, filtering, feature extraction and techniques used for oscillation analysis.

Position Description

- Knowledge of statistics and its application to engineering data, machine learning and analytical modelling.
- Experience automating or interfacing with power system study applications.
- Experience using MATLAB for control, signal processing, engineering analysis and visualisation.
- Exposure to Fortran or other high-performance scientific computing languages used in power system applications is advantageous.
- Electricity industry experience.

Qualifications

- Tertiary qualification in Engineering, Mathematical Sciences, Computer Science, Data Science or an equivalent relevant discipline.

Background Checks

- Pre-employment checks, including background and security checks (such as global criminal checks) are required for this position, completed prior to commencement and repeated on a regular basis after appointment.

NOTE: Copies of the above listed qualifications/licences/certificates are required as evidence on appointment.