

## Position Description

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<b>Position title:</b>	Senior GIS Engineer
<b>Reports to:</b>	Manager Data Insights
<b>Direct reports:</b>	Nil
<b>Date:</b>	July 2020

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## Organisational Context

Transport Certification Australia is a national organisation that provides assurance services relating to transport technologies and data to enable improved public purpose outcomes from road transport.

Priority outcome areas enabled by TCA services include improved road safety, transport efficiency, freight productivity, asset management and sustainability.

TCA provides four broad categories of service:

- Assurance
  - Certification of service providers, telematics applications and data
  - Type approval of devices and systems, including telematics and on-board mass systems
  - Auditing of service providers, applications, and data
- Administration
  - Administration of the National Telematics Framework, including its rules, specifications, agreements, and digital infrastructure
  - Support for applications, schemes, and other initiatives on behalf of key stakeholders
- Analysis and reporting
  - Standardised and ad-hoc data analysis, reporting and data provision to support compliance, policy, planning, investment, and operational decision making
  - Managing the Telematics Analytics Platform to support user access to data and reporting services
- Advice
  - Provision of authoritative information and advice on current and emerging transport technologies and data, and associated services

TCA promotes a culture of professionalism, innovation, and integrity, with a commitment to accountability, quality, and excellence in the delivery of all TCA programs and services.

We recognise the unique skills and abilities of each individual, who come from a wide range of disciplines and backgrounds. We support our people through ongoing development and learning opportunities and create a supportive team environment for all our staff. We strive to be an employer of choice.

The TCA office is based in Melbourne.

## The Role

### Purpose of the Role

The Senior GIS (Geospatial Information System) Engineer has the responsibility and accountability to deliver geospatial engineering and development services within the Data Insights team. Working in a small team, the Senior GIS Engineer will implement and maintain GIS capabilities and develop spatio-temporal insights for TCA, its members and other government agencies.

The role will also provide an important support function to the administration of the audit program, focusing on TCA certified service providers.

The works will be undertaken in a project driven environment with a strong focus on adherence to quality systems.

### Major Responsibilities / Accountabilities

The Senior GIS Engineer will be required to develop and maintain TCA's geographic information services. Key responsibilities include:

- Technical leadership for the implementation, development and maintenance of TCA's telematics and spatio-temporal Insights capability
- Assessment of the GIS capability build requirements in conjunction with future enhancements of the system and to define the change impacts
- Managing the testing and change management processes to ensure GIS capability currency
- Representing the team as a trusted service provider, working closely with internal and external customers to understand, document and solve their geospatial insight needs
- Development and maintenance of geospatial insights
- Providing hands-on geospatial system administration services where required
- Documenting analysis, findings and recommendations in a structured manner that is easily understood by a broad audience
- Assisting in the publication of technical reports and papers
- Managing multiple competing priorities in a changing environment
- Liaison and technical assistance for internal staff, members and other stakeholders as required
- Applying professional and technical expertise to mentor staff, resolve technical issues, and to prepare and edit reports, submissions, papers and correspondence as directed
- Assisting with testing and audit activities as part of the TCA audit function
- Developing and maintaining documentation of process and procedures to support the introduction of new initiatives
- Exercising diligence when making decisions, adhering to the requirements outlined in the Delegations of Authority
- Maintaining and adhering to Quality Systems processes and procedures

## Key Stakeholder Interfaces

### **Internal**

Data Insights Manager

Data Insights Team

Operations Team

Strategy and Delivery Team

### **External**

Australian Governments

Road Managers and regulators

## The Person

### Qualifications, Knowledge and Experience

Mandatory:

- A tertiary qualification in computer engineering or information technology
- A minimum of 5 years' GIS engineering/development experience
- Demonstrated experience implementing and maintaining ArcGIS Enterprise in an Azure cloud environment
- Demonstrated experience with spatio-temporal development using ArcGIS Pro
- Experience with systems development and maintenance
- Excellent written and oral communication skills

Desirable:

- Experience using GeoMesa, H3 geocoding, Java, MapInfo, PowerBI and RapidMiner in a Big Data environment. Experience with Hadoop, Spark, DataBricks, Delta lake, JSON, MSSQL, Scala, Python and Tableau
- Experience applying project and service management (e.g. ITIL) methods and practices
- Knowledge of Heavy Vehicle transport planning principles and an understanding of the responsibilities of road authorities and transport operators

### Personal Qualities

- Demonstrated interest in the use of data to inform public policy
- Demonstrated willingness to learn and take responsibility for one's own personal development
- Demonstrated willingness to make decisions, take initiative and originate action
- Ability to deal with ambiguity, successfully adapting to changing demands and conditions
- Comfort working in an environment which is constantly evolving
- Demonstrated ethical behaviour

