



POSITION DESCRIPTION

Position Title:	Data Scientist (Modelling and Simulation)
Position Reference Number:	R&IWCS001b & R&IWCS002b
Division	WCSD
Position Classification:	ST3-4 Above
Position Location:	Edinburgh (SA)
Security Level:	NV1 on commencement, PV
Minimum Academic Qualification:	PhD
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Academic Disciplines

Aerospace/ Aeronautical Engineering, Naval Architecture	Chemical, Radiological, Biological, Food sciences	Materials Science
Computer Sciences, IT, Software Engineering, Telecommunications	Mathematics and physics	Psychology and Social Sciences
Mechanical and Mechatronic Engineering (including robotics)	Electronic/ Electrical Engineering	Other

Position Overview

The Weapons and Combat Systems Division (WCSD) of the Defence Science and Technology Group (DSTG) provides fundamental capability support to the Australian Defence Force (ADF) through modelling, high-fidelity computer simulations and analysis of complex dynamical systems. These systems emerge as a combination land, air, and sea platforms interacting with complex and dynamic warfare environments. The Data Scientist (in Modelling and Simulation) will undertake research within a diverse team, collaborate with stakeholders and clients, and contribute to inform decision making about capability acquisition as well as force design and tactical decisions for ADF operations.

The successful applicant should hold a bachelor degree in areas such as applied mathematics or statistics. The position would benefit from experience in mathematical system theory, computational statistics, computer simulations of non-linear dynamical systems, complex data visualization, and use of tools like R or MATLAB.

This position provides a unique opportunity to work across a combination of cutting edge defence systems that will transform the future defence capability of Australia.

Position Duties

Under guidance, the Data Scientist (in Modelling and Simulation) will:

1. Contribute to an interdisciplinary team analysing Defence complex dynamical systems that support activities ranging from future force design to tactics development through the use of mathematical models;
2. Be engaged in all aspects of the analysis methodology including scenario definition, design of experiments, statistical analysis, documenting and reporting of results to Defence stakeholders;
3. Understand the limitations and suitability of modelling, simulation and analysis tools and contribute to their innovation to achieve Defence outcomes in complex contested environments;
4. Undertake and contribute to research activities to evolve analytical tools and techniques to support and further develop the analytical capability;
5. Provide timely reports for clients and DST leadership on relevant research areas, and
6. Collaborate with external partners (international, industry or academic).

Other Requirements

Appointee will commence on a **Negative Vetting 1 (NV1)** security clearance and will be required to upgrade to a **Positive Vetting (PV)** security clearance after commencement.