



POSITION DESCRIPTION

Position Title:	High Performance Computing (HPC) Data Scientist
Position Reference Number:	ECRRSD016
Division	Research Services Division
Position Classification:	S&T3-4 (APS4/5-6)
Position Location:	Fishermans Bend, VIC/ Edinburgh, SA
Security Level:	Negative Vetting Level 2
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Academic Disciplines

	Aerospace/ Aeronautical Engineering, Naval Architecture	Chemical, Radiological, Biological, Food sciences	Materials Science
X	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 HPC Data Scientist will be responsible for liaising with Defence Science & Technology (DST) researchers to curate, coordinate and manage HPC data collections in accordance with the security classification, sensitivity of the data and the DST Data Management Framework. They will also gather and analyse data from multiple sources, perform statistical and/or mathematical programming, develop reports and visual representations, develop and/or maintaining databases, and provide consultation, technical assistance, and coordination for a wide variety of computational and data science research projects.

DSTs High Performance Computing (HPC) Centre will provide world class computational and data systems for innovative advanced research, development, modelling, simulation and experimentation to optimise defence platform design and operational performance, force development and optimisation, and to solve difficult and complex real-world defence problems.

It will support innovative research at the leading edge of engineering and data science. The key research domains in DST where the HPC will be pivotal include aerospace, cyber and electronic warfare, joint operations analysis, land, maritime, national security and intelligence, surveillance and reconnaissance and weapons and combat systems.

The HPC Data Scientist will build and maintain relationships and networks with the DST Research community, with the HPC and Computational Science Program Office, and with DST Information Management & Technology staff.

Position Duties

The HPC Data Scientist will:

- Collaborate with the research community in applying contemporary best-practice techniques in exploration and exploitation of large-scale, science related data. Techniques including Big Data Analytics, Machine Learning leading to Artificial Intelligence and ultimately use of HPC in the Design of Experiments.
- Contribute to the development of HPC data management plans for DST HPC research projects
- Manage all aspects of large and complex scientific data in a Defence HPC environment through the full data lifecycle:
 - ✓ Collaborate with researchers and research coordinators and other data scientists to develop DST's data science capabilities;
 - ✓ Evaluate research needs and use advanced techniques for efficient statistical programming and analysis of research data on HPC systems;
 - ✓ Provide HPC statistical programming guidance and recommendations to DST research staff;
 - ✓ Develop, write, execute, test, debug, implement, modify and support new or existing statistical or mathematical software programs in support of research projects;
 - ✓ Troubleshoot software issues with statistical or mathematical software vendors or technical support staff
- Assist researchers to optimise visualisation of HPC result sets and identify the tools and processes necessary for visualising large and complex data sets that may be generated/analysed on HPC systems:
 - ✓ Analyse data using statistical or mathematical software to generate descriptive statistics and develop statistical models and graphics;



- ✓ Prepare tables and quality graphics of statistical results for inclusion in reports, presentations, abstracts, manuscript submissions, and grant applications;
- ✓ Communicate statistical results to senior staff efficiently and effectively
- Inform research staff of new developments in the statistical and mathematical field associated with software and methodology appropriate to Defence research

Other Requirements

Positions may be exposed to data centre hazards, personal protection equipment will be provided. Some interstate travel and participation on scientific research trials may be required. Positions work as part of a dynamic team and there may be some peaks and troughs in the workload.

APPLY [HERE](#)*

***PLEASE NOTE:**

Applications are welcomed from candidates with **relevant computing qualifications** (i.e. certificate, diploma, undergraduate, or post-graduate degrees). Please note, to be eligible, **candidates will require 2 or more years demonstrated industry experience**, and some positions require industry accreditations.

Applications are to be submitted through the **DST “Early Career Researcher”** application portal. As an ICT professional, you will work alongside DST researchers and contribute towards DST’s scientific innovations and research outcomes.