

# **Information Pack**

Position Title: High Performance Computing Data Visualisation

**Specialist** 

Job Reference Number: DST/03930/18

**Position APS Level:** Executive Level 1 (S&T Level 5)

**Position Location:** Edinburgh, SA

Fishermans Bend, VIC

**Salary:** \$100,946 - \$113,866 (plus super)

Position/s: 1

**Employment Status:** Ongoing - Actual vacancy

Full time

Security Level: Negative Vetting 2

**Group:** Defence Science and Technology

**Division:** Research Services

Branch: White Paper ICT2286HPC Project

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Closing Date: 11:30pm (AEDT), Thursday 29<sup>th</sup> November 2018

No extensions will be granted and no late

applications will be accepted.

One APS Career...Thousands of Opportunities

### **About this Information Pack**

This information pack provides useful material regarding the role that you are applying for and further advice to guide you with your application.

# **Position Description**

Defence Science and Technology (DST) is developing Computational and Data Science capabilities including new High Performance Computing (HPC) Centre to enable DST to remain at the forefront of defence research. DST's HPC 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.

#### **Position Description**

DST is offering positions for passionate, innovative computing professionals interested in joining it on the journey to create and provide computational and data science capabilities in support of Australia's sovereign defence and research interests. The key research domains in DST to which HPC will be applied include aerospace, cyber and electronic warfare, joint operations analysis, land, maritime, national security and intelligence, surveillance and reconnaissance and weapons and combat systems.

Data visualisation is critical to the understanding and communication of science, particularly in an HPC environment.

The High Performance Computing Data Visualisation Specialist will be an expert in visualisation, bringing a depth of insight and creativity to extracting the most out of HPC generated data. They will work directly with DST scientists in the presentation and understanding of their own data through the application of specialised knowledge, including the use of advanced software tools and algorithms They will develop educational and information resources to guide the DST research community in the visualisation of scientific data; the incumbent will also contribute to the development of tools for viewing and interacting with novel Defence datasets.

The ideal candidate for this role will have demonstrated experience in the development and delivery of scientific or commercial visualisation services in a big data and/or HPC environment. The incumbent will maintain professional networks across the visualisation landscape, with a view to enhancing Defence's capability edge.

#### **Key Responsibilities**

The HPC Data Visualisation Specialist will provide oversight to their domain of expertise, with the following key responsibilities:

- Accountable for managing allocated resources, setting work area priorities, managing workflows, developing strategies and evaluating business outcomes relating to Data Visualisation for HPC research.
- Accountable for accurate completion of client requirements within timeframes and quality requirements, share expertise and guide and mentor less experienced employees.
- Oversee and manage developments to meet Defence's strategic needs through improvements to Data Visualisation services.

- Manage the enhancement of capabilities, information, knowledge and the transition of staff skills to meet project needs.
- Apply and a broad understanding of the domain knowledge to lead and undertake Data Visualisation activities.
- Understand application of data visualisation to the operational environment to provide advice to senior management and stakeholders.
- Facilitate appropriate direction for the team by clearly communicating goals and objectives.
- Liaise and negotiate with stakeholders to recognise their priorities and develop solutions to meet their needs and expectations.
- Diagnose a range of science and technology issues from a Defence and scientific ICT perspective and implement solutions.
- Interpret and translate information between customers, Australian Defence Force personnel, senior management and scientific teams to align strategic goals and project outcomes.
- Mentor HPC and Data Visualisation staff and ensure team members adhere to the internal processes.

If you require further information please call the contact officer on the front of this Information Pack.

# **Occupation Description**

Within the Information, Computing and Communications function an S&T5 Information Technology Specialist is accountable under limited guidance to undertake Information Technology (IT) science activities and tasks of considerable complexity. They will work within a framework of legislation, established principles, work practices and procedures in accordance with Defence's mission and business objectives. They will be a recognised authority in the application of techniques and will be expected to develop innovative techniques as required.

An S&T5 Information Technology Specialist will ensure appropriate application of established principles and will maintain professional, science and engineering standards and authenticity. They will have the ability to further develop applications and opportunities from external sources and will contribute to the creative application of existing knowledge.

An S&T5 Information Technology Specialist is accountable to plan, lead and manage a range of human and physical resources and exercise the associated people and financial responsibilities to achieve business objectives. They will take the initiative for achieving outcomes and progressing work, reviewing team and project performance and focusing on identifying opportunities for continuous improvement. They will work with independence and set work tasks that align with the strategic objectives and communicate expected outcomes.

An S&T5 Information Technology Specialist will have considerable stakeholder engagement and will be required to identify relevant stakeholders' expectations and concerns to develop an understanding of the methodology and practices to achieve outcomes that delivers benefits for both parties. They will be accountable to contribute towards ongoing self-improvement and professional development.

### **Group Description**

#### **DST Group's mission:**

DST Group is the Australian Government's lead agency charged with applying science and technology to protect and defend Australia and its national interests. It delivers expert, impartial advice and innovative solutions for Defence and other elements of national security.

#### **DST Group's vision:**

To be a world leader in defence science and technology – indispensable in transforming the Australian Defence Force and Australia's national security.

To achieve its mission and vision, DST Group:

- Provides scientific and technical support to current defence operations.
- Investigates future technologies for defence and national security applications.
- Ensures Australia is a smart buyer and user of defence equipment.
- Develops new defence and national security capabilities.
- Enhances existing capabilities by increasing performance and safety, and reducing the cost of ownership of defence assets.
- Works collaboratively with other government agencies to strengthen national security.
- Assists industry to better support Defence capability needs.

Further information about DST Group is available at <a href="www.dst.defence.gov.au">www.dst.defence.gov.au</a>.

### **Workgroup Description**

Research Services Division provides specialised services and innovative solutions which underpin the operational capability of DST. The major areas include scientific computing and the emerging e-Research strategy, nationally recognised and unique engineering capabilities, development and implementation of DST's major research infrastructure strategy, and development and acquisition of a world-class High Performance Computing capability for advance modelling and simulation. Chief Research Services Division leads a professional workforce of over 250 engineers, technicians, computer scientists and other professional services staff around Australia, delivering to, and partnering with, DST scientists and engineers, undertaking a broad, on demand, and dynamic array of work to keep DST at the forefront of research and development.

# **Duty Statement**

The duties of an S&T5 Information Technology Specialist occupation in Defence include the following (note: not all duties are required to be performed during a 12 month performance cycle):

- 1. Accountable for managing allocated resources, setting work area priorities, managing workflows, developing strategies and evaluating business outcomes.
- 2. Accountable for accurate completion of work within timeframes and quality requirements, share own expertise with others and guide and mentor less experienced employees.
- 3. Produce and publish new knowledge, techniques, applications and research outcomes.

- 4. Responsible for leading IT science activities including researching, designing, developing, testing and installing computer equipment.
- 5. Explain complex information and provide strategic and technical advice in the IT science discipline to achieve business outcomes for Defence.
- 6. Apply expertise in IT science analysis, methodologies, techniques to achieve Defence outcomes.
- 7. Build and sustain relationships with a network of industry and academia stakeholders to progress Defence outcomes.
- 8. Motivate and mentor teams, aligning complementary skills and allocate resources in a manner that delivers results.
- 9. Employ professional judgement and initiative in recommending solutions to IT science problems.
- 10. Evaluate projects to understand critical factors for success and engage in activities to achieve continuous improvement.

# **Science and Technology Job Elements**

The DST Group science and technology (S&T) structure allows flexibility at most levels where work is recognised in terms of research leadership, research, professional, technical and science and technology management job elements. For this position, work is expected to occur as follows:

- Research leadership 0 per cent,
- Research 0 per cent,
- Professional 90 per cent,
- Technical 0 per cent,
- S&T management 10 per cent.

### **Assessment Criteria**

Applicants should address the assessment criteria and provide examples which demonstrate their ability to perform the duties of the position.

You should be mindful that all information contained in your application must be 'UNCLASSIFIED'. Applications containing classified information will not be considered by the Selection Delegate.

Prior to preparing your application you must also ensure that you meet the eligibility requirements outlined in this Information Pack. In particular, please note the time frames relating to checkable background to meet security clearance requirements.

When you include an example, you should explain;

Your personal role in the task

- The methods you used
- Any barriers you were able to overcome and
- The outcome.

**PLEASE NOTE**: Applicants are required to provide a single 2000 word response addressing the following:

 Applicants are requested to consider the Position Description and Duty Statement and provide examples of relevant experience, qualities and skills that you will bring to the role. (2000 Words)

### **Qualifications / Experience Requirements**

#### **Mandatory:**

A visual, science or engineering degree is mandatory.

#### **Highly Desirable:**

- Demonstrable achievements in the development and delivery of scientific data visualisation for a number of requirements across scientific domains; demonstrated success in the establishment of a sustainable visualisation business practice within a scientific or research domain.
- The applicant needs to demonstrate a strong commitment to a client focus, continued life-long learning and a passion to bring the latest visualisation tools and techniques to scientific research.
- Graduate or post-graduate qualifications in scientific visualisation are preferable.

# RecruitAbility Scheme

The Department of Defence is committed to supporting the employment and career development of people with disability. Our participation in the APS RecruitAbility scheme means we will progress an applicant with disability to a further stage in the recruitment process, where



they opt into the scheme and meet the minimum requirements for the position.

#### How do I opt into the RecruitAbility scheme?

You will be asked to indicate if you wish to opt into the RecruitAbility scheme in the Diversity section of the application form. You must tick the 'opt in' box to participate in the scheme. Simply declaring that you have a disability will not automatically include you in the scheme.

#### Reasonable adjustments

We provide reasonable adjustments such as access, equipment or other practical support at relevant stages of the recruitment process. Please contact the Contact Officer listed on the first page of this information pack if you need any adjustments made.

Details about the RecruitAbility scheme can be found at the Australian Public Service Commission's website, see: http://www.apsc.gov.au/priorities/disability/recruitability.

#### What do we mean by disability?

For the purposes of the scheme, 'disability' is:

a limitation, restriction or impairment which has lasted, or is likely to last, for at least six months and restricts everyday activities. This includes:

- loss of sight (not corrected by glasses or contact lenses)
- loss of hearing where communication is restricted, or, an aid to assist with or substitute for hearing is used
- speech difficulties
- shortness of breath or breathing difficulties causing restriction
- chronic or recurrent pain or discomfort causing restriction
- blackouts, fits, or loss of consciousness
- · difficulty learning or understanding
- incomplete use of arms or fingers
- difficulty gripping or holding things
- incomplete use of feet or legs
- nervous or emotional condition causing restriction
- restriction in physical activities or in doing physical work
- disfigurement or deformity
- mental illness or condition requiring help or supervision
- long-term effects of head injury, stroke or other brain damage causing restriction
- receiving treatment or medication for any other long-term conditions or ailments and still restricted
- any other long-term conditions resulting in a restriction.

The two parts of the definition are the presence of a limitation, restriction or impairment which restricts everyday activities; and the expected longevity of the condition (6 months or more). This also includes episodic conditions.

The definition covers many types of disability. You do not need evidence of your disability to opt into the scheme, but you are making a declaration to the APS that you meet the definition.

# **Diversity and Inclusion**

The range and nature of work in Defence requires a workforce that reflects our diverse society. We welcome applications from Indigenous Australians, people from diverse cultural and linguistic backgrounds and people with disabilities. We are committed to providing an environment that values diversity and supports employees to reach their full potential.

Defence will accommodate all requests for reasonable adjustment for people with disabilities to assist in the application process and if successful, the inherent requirements of the position.

If you have individual requirements that need to be accommodated in order to participate in an interview or assessment centre please inform the contact person listed on the front of this Information Pack.

For confidential advice contact: diversitypolicyandprograms@defence.gov.au.

#### **Relocation Assistance**

For **ongoing** positions, successful applicants will be provided with relocation assistance, if required, and in accordance with Defence policy. Further information on relocations assistance will be available to the successful applicant through the Chairperson of the selection panel.

For **non-ongoing** positions, relocations assistance, if required, must be discussed with the Contact Officer for consideration.

### **Employment Agreement**

#### **Terms of the Engagement**

The successful applicant for the position noted in this Information Pack will be engaged under the *Public Service Act 1999*.

#### **Remuneration Package**

In accordance with Defence Enterprise Agreement (<u>DEA</u>) 2017 - 2020 the successful candidate will receive an attractive remuneration package with a salary within the range noted on the front page of this Information Pack and superannuation paid in accordance with legislative requirements.

# **Flexible Working Arrangements**

Defence assists its Australian Public Service (APS) employees to balance their work and lives through the provision of flexible working arrangements and conditions, flexible leave arrangements and by promoting wellbeing in the <a href="Defence Enterprise Agreement (DEA) 2017-2020">Defence Enterprise Agreement (DEA) 2017-2020</a>.

For more information on workplace flexibilities within Defence, please refer to our <u>Work Life</u> <u>Balance</u> web page.

Should you require consideration of a flexible working arrangement (e.g. flexible working hours or part-time hours) this should be discussed at interview.

### **Australian Public Service Values**

The Australian Public Service have Values and Employment Principles that shape the organisational culture of the Public Service. The Australian Public Service is:

- Impartial
- Committed to Service
- Accountable
- Respectful
- Ethical

#### **ICARE**

The values and employment principles can be found at the <u>Australian Public Service Commission website</u>.

### **Defence Values**

The Department of Defence has a framework of values that work alongside the <u>APS Values</u> and the values of <u>Navy</u>, <u>Army & Air Force</u> to reflect the traditions and identities of the Australian Defence Force (ADF) and the APS. The values underpin the Defence corporate culture, contribute to achieving organisational goals and the basis of the behaviours expected of our people and leaders; both APS and ADF.

The Defence Values:

**Professionalism** Striving for excellence in everything we do.

**Loyalty** Being committed to each other, our leaders and the organisation.

**Integrity** Doing what is right.

**Courage** The strength of character to do what is right – extending to both courage

of convictions (moral courage) and courage in harm's way (physical

courage).

**Innovation** Actively looking for better ways of doing business.

**Teamwork** Working together with respect, trust and a sense of collective purpose.

# **Defence Leadership Behaviours**

Defence is committed to implementing a strong performance culture. A key component of this is to increase the focus on supervisory and leadership requirements. Key behaviours required for all leaders and supervisors are:

- I am a **leader** who is focused on achieving Defence outcomes and I ensure my team understands how their work contributes to these **outcomes**.
- I build teams through managing performance honestly and respectfully.

- I seek out and accept the **diverse perspectives** of others in exploring opportunities and solving problems; I trust they will offer good ideas and will challenge in a constructive and respectful way.
- I take calculated **risks** and make **judgements** about what risks are necessary and acceptable to deliver the outcome.
- I am **accountable** for my actions and how I respond to the actions of those around me.
- I learn and reflect on my **performance** and that of my team.
- I actively adapt and seek to **innovate**.

### **Application Instructions**

We recommend you start your application on eRecruit as soon as possible. It is best to complete your Selection Criteria in Microsoft Word then copy, paste and save each criterion into the system.

For more information please refer to the Applicant User Guide.

All applications must be submitted through the online application system prior to the closing date.

NOTE: Do not withdraw your application for editing. Once you have withdrawn your application, you will NOT be able to re-submit it or submit another application for this vacancy.

Further advice on addressing selection criteria can be found the 'Cracking the Code' publication located on the Australian Public Service Commission website.

You do not need to include written referee reports with your application. However, you should include the names and contact details of two referees who can comment on your work performance. We expect that one of your referees will be your current supervisor or manager. If you don't want us to contact your referees without advising you first, indicate this in your application.

Vacancies will be extended **in exceptional circumstances only**. Applicants requesting an extension **must** contact the Contact Officer **24 hours prior** to the vacancy closing date.

**PLEASE NOTE: APS Careers @ Defence** is for job seekers only. We do not accept unsolicited resumes or applications from recruitment agencies and/or search firms and will not pay fees to any such organisations unless arranged with the provider prior to advertising the vacancy.

### Withdrawing an Application

If you have submitted an application and no longer wish to be considered for the position, you must withdraw your application in eRecruit.

If you withdraw your application **after the closing date**, please **inform the Contact Officer** through the phone number and/or email address on the front page of this Information Pack.

PLEASE NOTE: Once you withdraw your application you will NOT be able to re-submit it or submit another application for this vacancy.

For more information on withdrawing your application via the APS Careers @ Defence eRecruit system, please refer to our <u>Applicant User Guide</u>.

### **The Selection Process**

Defence APS recruitment processes are based on merit which means that we select the best person for the job from a field of applicants. We compare and weigh-up the skills, experience and abilities of each applicant and often use different tools and techniques (such as written applications, interviews and/or work sample tests) to collect the evidence needed to make a merit-based decision.

#### **Merit List**

A merit list may be created from the list of suitable applicants which may be used to fill similar position/s in the event a position/s becomes vacant within the 12 months from gazettal date of this position.

Suitable applicants' details may be shared with other APS Agencies in accordance with the *APS Commissioner's Directions 2016*.

### **Psychological Assessment**

Some positions at DST Group require that shortlisted applicants undertake a Psychological Assessment to determine organisational suitability. Psychological assessments are conducted to determine suitability to work in a high security environment and/or to hold a Top Secret (Positive Vetting) (TSPV) security clearance. You must obtain and maintain a PV security clearance to work in designated areas of Defence.

The Psychological Assessment is an integrated assessment tool which comprises the completion of a consent form, written psychological tests, and where appropriate, a face-to-face interview(s) with a registered psychologist. You may be asked to participate in further psychological testing if required.

The assessment is administered in a manner which ensures informed consent, fair dealing with all applicants and employees, and the greatest possible degree of privacy and transparency of process. Before you submit an application you should consider your own preparedness for questions that may include the following topics: personal relationships, living circumstances, personal values, financial situation, physical and mental health history including substance use, and any civil and/or military record.

The process is necessarily more intrusive than you will encounter in most other employment applications but it is important that you be honest and accurate in disclosing details about yourself.

# **Science and Technology Job Elements**

The elements are described as:

**Research**, which occurs at science and technology (S&T) levels 4–8, is the process of generating new scientific knowledge that has potential generic usefulness beyond the current problem or application. It is demonstrated by:

- personal contribution to research activities
- conceiving methods both experimental and theoretical and following them through
- understanding existing knowledge and extending it; expanding it in areas relevant to Defence
- creating new knowledge
- the Defence research process covering:
  - o analysis of Defence needs to identify knowledge deficiencies
  - o understanding of current knowledge, becoming conversant with literature
  - o identification of gaps, needs
  - o development of a method or approach, following through with research work
  - o comprehension and articulation of outcomes
  - putting outcomes into context
  - o reporting, presenting, publishing.

**Professional**, which occurs at S&T levels 3–7, is the application of established scientific principles to a new problem. It requires full understanding of the theory and current state of scientific knowledge. It is demonstrated by:

- understanding the state of scientific and/or engineering knowledge in relevant field(s)
- understanding how to apply this knowledge
- applying scientific and/or engineering knowledge in ways that are often creative and innovative to produce agreed outcomes
- reporting, presenting and publishing results.

**Technical**, which occurs at S&T levels 1–6, is the application of established scientific and technical principles, practices and procedures. It requires a full understanding of technical processes and some understanding of scientific theory and underlying principles. It is demonstrated by:

- skills in application of techniques and procedures
- understanding what works and what does not work
- understanding the best approach to achieving a desired result
- possessing a sound knowledge of the behaviour and operation of systems, components, equipment, procedures and computing processes
- using relevant expertise to produce useful effective outcomes
- · reporting and presenting results.

**S&T management**, which occurs at S&T levels 4–8, is concerned with the achievement of scientific goals by the efficient application of resources. It covers staff, project and policy activities. It requires S&T knowledge to make judgements in reaching decisions. It applies to staff, resource, policy and intellectual property management in the science, engineering and technical domains. It is demonstrated by:

- managing DST Group tasks
- utilising people and resources effectively to produce agreed science and technology outcomes for DST Group
- inspiring and motivating people
- using resources efficiently and accountably
- developing and applying policies and procedures

• communicating effectively and negotiating with members of Defence, other government departments, defence industry, academia and other stakeholders.

### **Eligibility**

Employment with the Department of Defence is subject to conditions prescribed within the Public Service Act 1999.

**Citizenship** - To be eligible for employment with Defence, applicants must be an Australian citizen. Only in exceptional circumstances can this requirement be waived.

**Health Assessment –** The preferred applicant may be required to undergo a medical examination conducted by the Department's preferred medical provider.

**Security Clearance** - The preferred applicant will be required to successfully undergo the security clearance vetting process at a specified clearance level. The preferred applicant **MUST** be willing to disclose all relevant and required information.

The preferred applicant **MUST** have lived in Australia, or have a checkable background, for at least the preceding:

- Five years for BASELINE VETTING clearances, or
- Ten years for NEGATIVE VETTING Level 1 / NEGATIVE VETTING Level 2 clearances, or
- POSITIVE VETTING clearances The checkable period is ten years *OR* from 16 years of age, whichever is greater.

**Important:** You must be able to provide background information to the Australian Government Security Vetting Agency (AGSVA), to cover the relevant period of time in line with the required security clearance for this position. Details of the information and documents you are required to provide can be found on the <u>Security Clearance - Fact Sheet</u>. Please ensure that you read this information thoroughly and confirm that you are able to provide the necessary documents if you apply for the position.

The security clearance level required for this position can be found on the front page of this Information Pack.

More information on the security clearance vetting process is available on the <u>Australian</u> Government Security Vetting Agency (AGSVA) website.

Thank you for your interest Department of Defence