Selection Documentation
Technology Talent Register
Data Professionals
Level 4—EL2 ($93,591—$ 194,957)

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ASIS is Australia's overseas secret intelligence collection agency. Its mission is to protect and promote Australia's vital interests through the provision of intelligence services as directed by the Australian Government. Its work can involve collecting intelligence relating to national security, international relations and economic issues. It also contributes to Australia's coordinated national efforts against terrorism, proliferation of weapons of mass destruction, and trans-national issues such as people smuggling.

ASIS employs people in a wide range of roles, including technologists. These roles require dynamic team players who enjoy working with stakeholders, team members and individually on projects. ASIS is looking for people who will be able to meet tight deadlines and work to support ASIS priorities. Sucessful candidates will have excellent coordination and administration skills, excellent verbal and written communication skills; and, strong stakeholder engagement and influencing skills. Relevant tertiary qualifications and demonstrable experience will be highly regarded.

ASIS values workplace diversity and is committed to providing a supportive, inclusive and respectful work environment. We encourage applications from Aboriginal and Torres Strait Islander People, women, people with disabilities, people that identify as LGBTIQ+ and people from culturally and linguistically diverse backgrounds.

We offer a competitive salary packing, including 22 days annual leave, shutdown between Christmas and New Year's Day, 15% employer superannuation contribution, access to flex time (up to Level 6 only) and generous paid maternity/paternity leave.

Positions for these roles are based in Canberra and/or Adelaide CBD. **This role requires the successful applicant to obtain and maintain a security clearance.**

Data Professionals (Level 4—EL2)

Are you keen to design and develop world-class capabilities, turning data into knowledge and operational outcomes? Are you passionate about building solutions to allow data to tell its story? ASIS offers an opportunity to achieve these goals in an uncompromisingly unique environment. As a Data Professional in ASIS, you will have the chance to actively enable our operational teams to make the best use of ASIS's unique data assets.

ASIS leverages the wide world of open source software and supplements it with our own development to deliver the bespoke tools required for the ASIS mission. Among our core languages are Python, Scala, Java, C++, Rust and JavaScript. Our toolset includes Spring, PyTorch, Tensorflow, Apache Spark, Apache Accumulo, Apache Hadoop, Apache NiFi, Apache Solr, Ansible and Git. We leverage structured and unstructured data, including geospatial and multilingual data sets of varying quality. Ideal candidates will be extraordinarily innovative, self-motivated and keen to use these toolsets to craft new systems that are simply not found in any other organisation.

If this sounds like an environment you could thrive in, then apply for one of these unique positions.

Application Levels

A Level 4 candidate would be expected to be new to the area and work under the guidance and supervision of a more senior officer.

A candidate at the Level 5 level would be expected to have one to two years real-world experience and will be working under some supervision.

A Level 6 level candidate would be expected to have more experience and operate with limited supervision within a core group of developers.

A candidate at the EL1 level is expected to have substantial experience, and some deep technical expertise. They operate entirely independently and have the capacity to fulfil leadership roles as required.

EL2 candidates fulfil principal engineer or section leadership roles. They are expected to have substantial experience and significant deep subject matter expertise in their field of specialisation.

Specialisations

We have a number of positions available including:

- Site Reliability Engineers at Level 5 to EL2;
- Software Engineers at Level 4 to EL1;
- Data Scientists at Level 4 to EL1; and
- Machine Learning Engineers at Level 5 to EL1
- Data Specialists at Level 4 to Level 6

Please indicate in your application the role(s) and level(s) for which you would like to be considered.

Pay Ranges:
L4: $93,591 - $97,628
L5: $101,169 - $108,998
L6: $111,989 - $129,063
EL1: $139,823 - $163,364
EL2: $165,218 - $194,957

1. Site Reliability Engineer (Level 5—EL2)

Site Reliability Engineers in ASIS maintain highly specialised systems delivering to operational teams around the globe. We have a large number of systems delivering a variety of services at a range of maturities. There is never a dull moment and we work closely with our data scientists and analytical teams to have a real impact.

1.1. Key Responsibilities and Tasks

In this role you will:
- Build, maintain and support development, test and production environments including CI/CD
- Implement and maintain best-practice security controls, including both on-system and throughout the development lifecycle
- Develop and maintain high-quality documentation including logical, system and network design documentation
- Perform analysis of monitoring, error reporting, alerting and issue reports to find the root cause of problems
- Collaborate with other engineers and data scientists to implement robust and scalable software solutions in a problem space like no other
- Contribute to the design and development of ground-breaking solutions for unique data challenges across the ASIS mission
- Independently learn and develop new skills and techniques with an eye to practical applications
- Communicate regularly and pre-emptively with peers and colleagues to keep everyone informed

1.2. Education, qualification and experience requirements

The following education, qualifications and/or experience will be highly regarded:
- Formal training, such as a bachelor's degree in computer science, engineering, or related field
- Deep understanding of large-scale deployments using Ansible
- Network accreditations
- Strong problem-solving skills and a passion for staying updated on industry trends

2. Software Engineer (Level 4—EL1)

Software Engineers in ASIS build tools that are, robust, accurate and highly performant. They are highly motivated and work collaboratively with other technical specialists to let the data speak for itself, developing new systems and continuing to evolve established and legacy systems.

2.1.   Key Responsibilities and Tasks

As a Software Engineer in ASIS you will:
- Work closely with other engineers and our data scientists to imagine, design, construct and sustain systems that enable the best use of ASIS's data
- Translate high-level requirements from work packages into real-world systems with limited supervision
- Contribute to the high-level design of data system architecture across ASIS
- Independently learn and develop relevant new skills and techniques with an eye to practical applications
- Communicate regularly with peers and colleagues to keep everyone informed

2.2.   Education, qualification and experience requirements

The following education, qualifications and/or experience will be highly regarded:
- Formal training, such as a bachelor's degree in a relevant field such as computer science or software engineering, or equivalent
- Experience working and succeeding as a software or data engineer in industry, government, intelligence or research institutions
- Demonstrated independent drive to succeed in a small, tight-knit team
- Excellent verbal and written communication skills

3. Data Scientist (Level 4 – EL1)

Data Scientists in ASIS work directly with client areas to make the best use of ASIS's unique data assets and achieve operational impact. They train and deploy machine learning models on premises and at the edge to enrich data and find the right information as quickly as possible. They are highly motivated and work collaboratively with other technical specialists to evolve and improve existing data exploitation systems.

3.1. Key Responsibilities and Tasks

As a Data Scientist in ASIS you will:
- Support customers to realise value from data through data wrangling, complex analysis and machine learning
- Engage with customers to identify potential operational benefits from the application of data science, including identifying relevant data and analytic opportunities
- Identify and implement relevant analytic tools and techniques
- Act as a leader to foster a data driven culture across the organisation and support business areas to achieve operational outcomes

3.2. Education, qualification and experience requirements

The following education, qualifications and/or experience will be highly regarded:
- A history of successfully applying of data/maths/stats expertise to solve real-world problems;
- Experience using suitable programming languages (such as R, Scala, Rust or Python) to manipulate, model, analyse and present data to meet client requirements;
- Experience commensurate to the level in data analysis, machine learning model training & fine-tuning, and data wrangling; and
- Strong communications skills and a history of successful client engagements

Experience in the following would be beneficial, but not essential:
- Formal training in data science, computer science, mathematics, statistics, physics, engineering or similar quantitative discipline
- Understanding of the trade-offs between different tools, approaches and algorithms, and a willingness to learn new tools and algorithms as necessary, and apply a "best fit" to achieve outcomes in a timely manner
- Experience in large graph or network-based analytics
- Experience working with Hadoop based systems to achieve analytic outcomes
- Delivering outcomes as a member of a multi-disciplinary team

4. Machine Learning Engineer (Level 5 – EL1)

Machine Learning (ML) Engineers in ASIS, lead the development and implementation of MLOps solutions. You'll work with other data professionals to establish and maintain best practices for ML model training, storage, and deployment. Your expertise will be crucial in ensuring our ML systems are efficient, scalable, and reliable. You will work with a full on-premise GPU compute stack from infrastructure to application layer.

4.1. Key Responsibilities and Tasks

As a Machine Learning Engineer in ASIS you will work with a team of data professionals to deliver mission impact from available data. You will be expected to:

- Collaborate with data scientists and data engineers to build and maintain best practices for ML model training, storage, and deployment.
- Provide specialist advice and technical guidance to data science and data engineering teams, ensuring adherence to best practices and relevant policies.
- Independently learn and develop new skills with emerging ML techniques, and apply them in practical ways to improve our ML systems.
- Contribute to planning, procurement, commissioning and configuration management of GPU computing hardware.
- Communicate regularly and pre-emptively with peers and colleagues to keep everyone informed.

4.2. Education, qualification and experience requirements

The following education, qualifications and/or experience will be highly regarded:
- Formal training in computer science, machine learning, software engineering, or related field
- Understanding the trade-offs between different tools, approaches and algorithms, and a willingness to learn new tools and algorithms as necessary, and apply a "best fit" to achieve outcomes in a timely manner
- Experience applying software engineering and DevSecOps practices to the management of machine learning systems
- Strong problem-solving and communication skills and a passion for staying updated on industry trends

Experience in the following would be beneficial, but not essential:
- MLOps tooling such as MLFlow, Ray, Flyte, KubeFlow, Kserve or an enterprise scale machine learning platform.
- Using suitable programming languages (such as Rust, C++ or Python) for production machine learning systems.
- Automation of large-scale deployments using Ansible
- Working with on-premise GPU accelerated compute
- Optimisation of models with one of the following high performance frameworks: HuggingFace Candle, OpenVino, TensorRT, FasterTransformers, Onnyx.

5. Role: Data Specialist (Level 4, - Level 6)

We are looking for a motivated Entry-Level Data Specialist to join our team and tackle unique data challenges that directly impact our business operations. This role is perfect for candidates eager to kick-start their career in data engineering, integration, and management. You will be responsible for handling diverse data sets, using tools like Java, NiFi, and Python to ensure seamless data ingestion into our systems, and becoming a subject matter expert on data formats and structures.

ASIS operates in an uncompromisingly unique environment. No two days, or datasets, will be the same as you maximise the use of ASIS's operational data holdings - a challenge that sets us apart from the ordinary.

5.1 Key Responsibilities and Tasks

In this role you will:
- Troubleshoot issues related to data ingestion, identifying root causes and implementing sustainable solutions promptly
- Implement basic data validation and quality checks to ensure data integrity throughout the ingestion process
- Assist in developing and maintaining data ingest pipelines under the guidance of senior team members
- Collaborate closely with data engineers, analysts and mission areas to understand data requirements and support data delivery initiatives
- Learn to become proficient in understanding and interpreting data structure, enrichments, and business context
- Contribute to communicating and documenting data workflows, processes, and solutions for knowledge sharing

5.2 Core Skills / Education, qualification and experience requirements

The following education, qualifications and/or experience will be highly regarded:
- Cert IV or Bachelor's degree in Computer Science, Information Technology, or a related field (recent graduates are encouraged to apply)
- Basic understanding of programming concepts; familiarity with Java, Python, or similar languages is a plus
- Strong interest in learning about data management, ETL (Extract, Transform, Load) processes, and data pipelines
- Eagerness to develop skills in database management systems (relational, and non-relational) and bulk data concepts
- Ability to work collaboratively in a team environment and willingness to learn from experienced professionals
- Excellent problem-solving skills and attention to detail

Selection Criteria (Level 4 – Level 6)

Candidates are not required to provide a separate written response to the ILS capabilities (below), however, candidates are encouraged to consider the capabilities in preparing their application, as each candidate will be assessed on their ability to demonstrate behaviours aligned to the capabilities for the position.

For more information on the ILS, tips on applying for jobs in the Public Service, go to the APSC website found at www.apsc.gov.au.

Supports Strategic Direction
- Supports shared purpose and direction;
- Thinks strategically;
- Harnesses information and opportunities; and
- Shows judgment, intelligence and common sense.

Achieves Results
- Identifies and uses resources wisely;
- Applies and builds professional expertise;
- Responds positively to change; and
- Takes responsibility for managing work projects to achieve results.

Supports Productive Working Relationships
- Nurtures internal and external relationships;
- Listens to, understands and recognises the needs of others;
- Values individual differences and diversity; and
- Shares learning and supports other.

Displays Personal Drive and Integrity
- Demonstrates public service professionalism and probity;
- Engages with risk and shows personal courage;
- Commits to action;
- Promotes and adopts a positive and balanced approach to work; and
- Demonstrates self-awareness and a commitment to personal development.

Communicates with Influence
- Communicates clearly;
- Listens, understands and adapts to audience; and
- Negotiates confidently.

Job Specific Requirements
- Demonstrated experience and education relevant to the role.

Selection Criteria (Executive Level 1 – Executive Level 2)

Candidates are not required to provide a separate written response to the ILS capabilities (below), however, candidates are encouraged to consider the capabilities in preparing their application, as each candidate will be assessed on their ability to demonstrate behaviours aligned to the capabilities for the position.

For more information on the ILS, tips on applying for jobs in the Public Service, go to the APSC website found at www.apsc.gov.au.

Shapes Strategic Thinking
- Inspires a sense of purpose and direction;
- Focuses strategically;
- Harnesses information and opportunities; and
- Shows judgment, intelligence and common sense.

Achieves Results
- Builds organisational capability and responsiveness;
- Marshals professional expertise;
- Steers and implements change and deals with uncertainty; and
- Ensures closure and delivers on intended results.

Cultivates Productive Working Relationships
- Nurtures internal and external relationships;
- Facilitates co-operation and partnerships;
- Values individual differences and diversity; and
- Guides, mentors and develops people.

Exemplifies Personal Drive and Integrity
- Demonstrates public service professionalism and probity;
- Engages with risk and shows personal courage;
- Commits to action;
- Displays resilience; and
- Demonstrates self-awareness and a commitment to personal development.

Communicates with Influence
- Communicates clearly;
- Listens, understands and adapts to audience; and
- Negotiates persuasively

Technical Capability
- Demonstrated experience and education relevant to the role.

HOW TO APPLY

Applicants will need to apply **ONLINE** via our website.

Applicants will required to attach a resume and submit a maximum 500 word pitch outlining their relevant experience, skills and knowledge to perform the duties of the role.

You will be asked what **level** and **role(s)** you are applying for.

Applicants are encouraged to consider the capabilities when preparing their application, as this will form the basis of selection assessment. For more information and tips on applying for jobs in the Public Service, search 'Joining the APS' at www.apsc.gov.au.

After application submission, you may receive an SMS requesting you to complete online testing. Please ensure you complete this as your application will not be progressed otherwise.

APPLICATIONS CLOSE: Refer to date on website

ELIGIBILITY

Candidates must be Australian citizens.

The successful candidate will be required to obtain and maintain a security clearance.

REASONABLE ADJUSTMENTS

All requests for reasonable adjustments will be considered and managed in consultation with you. We will continue to ask you if you require reasonable adjustments at each stage of the process. If you are successful in gaining employment, reasonable adjustments can also be made available to you in performing your role.

WHAT HAPPENS NEXT?

You may receive a SMS requesting you to complete online testing. Please ensure you complete this as your application will not be progressed otherwise.

Please do not tell anyone about your application with our organisation at this stage of the process as doing so may harm your suitability for employment with us.

A merit list will be established for candidates who are suitable and will remain valid for a period of 18 months.

We thank you for the time and effort you have put into your application; however, we are unfortunately unable to provide feedback to unsuccessful candidates.