Role Name: Data Scientist

**Role data**

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| **Position no.** | E12185 | **Work Area Profile** | Research and Evaluation team |
| **Work Level Classification** | Level 6 | **Directorate/Business Unit** | Strategy and Policy |
| **Reports to (role)** | Manager Research Analytics and Insights | **Location** | Melbourne |
| **No. direct reports** | Nil | **No. of indirect reports** | Nil |
| **Version date** | October 2021 | **Tenure** | ongoing |

**Work area profile**

Ahpra’s overall mission is to protect the public by regulating health practitioners efficiently and effectively in the public interest to facilitate access to safer healthcare for all the community. Website: [www.ahpra.gov.au](http://www.ahpra.gov.au)

The Ahpra Research and Evaluation team, which sits within the Strategy and Policy Directorate, reflects Ahpra’s investment in the enhanced evaluation and research projects and provides expert research and evaluation skills, advice and support to ensure high quality evaluation and research work throughout the organisation.

**Role purpose**

The Data Scientist works within the Research and Evaluation team to establish and support the early features of an Advanced Analytics function, initially in a research context. This hands-on role involves developing and maintaining analytic platforms that support Ahpra to use regulatory data to optimize decisions and meet business goals effectively.

The Data Scientist works with the team and other colleagues to design, develop and test various models and work using a range of tools and programming languages, strong communicator on technical topics for non-technical colleagues and partner with colleagues to assure the successful deployment of in-house solutions and explores how analytics can support regulatory decision-making in the public interest to facilitate access to safer health care.

**Key accountabilities**

* Data Management and Analysis:
* Work with analytics tools and/or write clean, well-formatted and well-structured SQL, R and/or Python code to access and process sensitive health and regulatory data for advanced analytics to facilitate the ongoing development of improved regulatory policy and support decision making
* Devise techniques and frameworks that effectively deidentify data for research, analysis and development purposes
* Pre-process data and apply supervised and unsupervised machine learning techniques that optimise the accuracy of predictions, review/refactor and version control model code as required
* Design experiments to test the application of advanced analytics and machine learning techniques in health regulation, test hypotheses, analyse results and communicate findings to senior staff and key stakeholders
* Adhere to organisational data governance and ethical requirements
* Contribute to the development of PowerBI dashboards that bring together dynamic, interactive visualisations of data and predictive analytics to assist staff to engage with data and support decision making within a research environment.
* Within organisational systems and processes, maintain reliable R and/or Python development environments, version control and ensure resilient and secure data stores as required. Using and promoting appropriate software and software development processes.
* Access data stores using a variety of database and parallel data processing technologies, debug/refactor complex queries and workflows.
* Developing models that are fair, equitable and unbiased and ongoing review and maintenance of these models
* Partnerships and engagement
* Partner with internal stakeholders to develop analytics proof of concept projects that support their business needs and help identify areas for improvement / further analysis
* Partner with others to support the development of platforms to host the output of data products to key stakeholders (including authentication protocols, administrative and security needs)
* Health Safety and Wellbeing: Ensuring the workplace provides a safe working environment with the required level of care and respect for its participants meaning to:
  + Take reasonable care for own and others’ health, safety and wellbeing
  + Adhere to Ahpra’s workplace health, safety and wellbeing policies and procedures.

**Capabilities for the role**

The Ahpra [Capability Framework](https://ahpragovau.sharepoint.com/sites/intranet/SitePages/Capability-framework.aspx) applies to all Ahpra employees. Below is the complete list of capabilities and proficiency level required for this position.

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| **Capabilities** | **Proficiency level** |
| Commits to customer service | Intermediate |
| Displays leadership | Foundation |
| Generates and delivers the strategic vision | Intermediate |
| Demonstrates an awareness of the National Registration and Accreditation Scheme (the National Scheme) and the National Law | Foundation |
| Builds constructive working relationships | Advanced |
| Communicates effectively | Advanced |
| Demonstrates accountability in delivering results | Advanced |
| Uses information and technology systems | Highly Advanced |
| Displays personal drive and integrity | Advanced |

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| **Qualifications/Experience** | **Required** |
| **Qualifications** | A tertiary qualification in statistics, mathematics, data analysis, data science, or a degree with a strong focus on research methods and data analysis, or equivalent demonstrated experience. |
| **Experience** | Demonstrated experience in experimental design and research methodologies for advanced analytics.  Demonstrated experience accessing and processing data using a range of tools.  Advanced skills in relevant programming languages such as Python and/or R for the development of internal and external stakeholder data outputs and dashboards.  Advanced skills to develop enterprise-ready dashboards using open-source frameworks and Microsoft products and services, such as Power BI, SQL Server, Azure, R and Python.  Demonstrated experience to reliably apply the fundamental techniques of supervised and unsupervised machine learning  Highly developed verbal communication skills to enable open information sharing within a team. Strong skills to communicate technical topics for non-technical colleagues and partner with colleagues to assure the successful deployment of in-house solutions.  **Desirable**  Experience with the fundamental tools of software engineering like version control, Docker, unit testing, Azure and other cloud infrastructure  Experience developing data products using R/Python and deploying enterprise-ready products with Power BI  Previous experience with the use of parallel data processing technologies |

**Key relationships**

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| **Internal relationships** | **External relationships** |
| Ahpra internal directorates | Research partners |
| National boards | Jurisdictional health departments |
| Executive Officers | State, territory, national and international health research entities |
| Research Evaluation Committee |  |
| National Executive Committee |  |
| Agency Management Committee and relevant sub-committees |  |