# Ministry of Social Development logo

## Data Scientist

## Te Pae Tawhiti Programme

## Our purpose

**Manaaki tangata, Manaaki whānau**

We help New Zealanders to be safe, strong and independent

## Our commitment to Māori

As a **Te Tiriti o Waitangi** partner we are committed to supporting and enabling Māori, whānau, hapū, Iwi and communities to realise their own potential and aspirations.

## Our strategic direction



## Our Values



## Working in the Public Service

Ka mahitahi mātou o te ratonga tūmatanui kia hei painga mō ngā tāngata o Aotearoa i āianei, ā, hei ngā rā ki tua hoki. He kawenga tino whaitake tā mātou hei tautoko i te Karauna i runga i āna hononga ki a ngāi Māori i raro i te Tiriti o Waitangi. Ka tautoko mātou i te kāwanatanga manapori. Ka whakakotahingia mātou e te wairua whakarato ki ō mātou hapori, ā, e arahina ana mātou e ngā mātāpono me ngā tikanga matua o te ratonga tūmatanui i roto i ā mātou mahi.

In the public service we work collectively to make a meaningful difference for New Zealanders now and in the future. We have an important role in supporting the Crown in its relationships with Māori under the Treaty of Waitangi.  We support democratic government. We are unified by a spirit of service to our communities and guided by the core principles and values of the public service in our work.

## The outcomes we want to achieve

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| New Zealanders get the support they require | New Zealanders are resilient and live in inclusive and supportive communities | New Zealanders participate positively in society and reach their potential |

## We carry out a broad range of responsibilities and functions including

* Employment, income support and superannuation
* Community partnerships, programmes and campaigns
* Advocacy for seniors, disabled people and youth
* Public Housing assistance and emergency housing
* Resolving claims of abuse and neglect in state care
* Student allowances and loans

## **He whakataukī\***

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| --- | --- |
| Unuhia te rito o te harakeke  Kei hea te kōmako e kō?  Whakatairangitia, rere ki uta, rere ki tai;  Ui mai ki ahau,  He aha te mea nui o te ao?  Māku e kī atu,  He tangata, he tangata, he tangata\* | If you remove the central shoot of the flaxbush  Where will the bellbird find rest?  Will it fly inland, fly out to sea, or fly aimlessly;  If you were to ask me,  What is the most important thing in the world?  I will tell you,  It is people, it is people, it is people |

\* We would like to acknowledge Te Rūnanga Nui o Te Aupōuri Trust for their permission to use this whakataukī

## Position detail

Te Pae Tawhiti

Te Pae Tawhiti – Our Future is about MSD’s future role and how we can make a bigger and better difference for New Zealanders. In support of Te Pae Tawhiti – Our Future*,* [Te Pae Tata](https://www.msd.govt.nz/documents/about-msd-and-our-work/about-msd/strategies/te-pae-tata/te-pae-tata-maori-strategy-and-action-plan-single.pdf) and [Pacific Prosperity](https://www.msd.govt.nz/about-msd-and-our-work/about-msd/strategies/pacific-strategy/index.html) describe how our future will be realised for Māori and Pacific peoples.

Te Pae Tawhiti Transformation Programme (the Programme) will help us achieve the shifts we want to make. The Programme will also position us to deliver the changes to the welfare system that the Government requires. Achieving our Te Pae Tawhiti vision will be a multi-year journey for MSD. To ensure we are responsive and can adapt to the wide range of changes, we are adopting an iterative, agile approach to the design and delivery of the Programme. We are currently working on detailed design, where we’ll be involving clients, staff, and a broad range of stakeholders.

This is a once in a generation change to the way MSD delivers services to New Zealanders, it’s our opportunity to set up MSD for the next 30 years. The programme will be a major undertaking, delivering significant benefits to over a million New Zealanders who access MSD support and services. This is an unrivalled opportunity to be involved in MSD’s journey.

### Overview of position

The purpose of the Data Scientist position is to provide timely, innovative and practical data science solutions to complex analytical problems. The Data Scientist is a specialist internal data consultant and influential trusted advisor who works closely with the business units to understand their needs, challenges and opportunities. It effectively collates, analyses and presents data from a range of sources to inform service and system design processes and solutions ensuring these are fit for purpose.

The role is a data analytics champion assigned to a transformation project to help implement a new capability into the Ministry that strengthens employment outcomes for our clients. You will be involved in designing and tuning our employment taxonomy and matching capabilities.

### Location

### National Office, Wellington

### Reports to

Director

## Key responsibilities

Innovation and Delivery

* Participate in the end-to-end data science lifecycle, from data collection and cleaning to building the products to support frontline, clients and employers.
* Use innovative data science methods to enhance the the business outcomes into the new capabilities to assist employment outcomes.
* Use the Model Development Lifecycle to build safe and effective operational models, in line with the Privacy Human Rights and Ethics (PHRaE) Framework and the Algorithm Charter and other regulations and frameworks as appropriate
* Confirm the suitability of proposed solutions with front line and business knowledge experts to ensure safe interpretation of the analysis provided to them.

Data and Software Engineering

* Collaborate with data engineers in building pipelines for constructing appropriate data management systems for data science capabilities
* Develop innovative uses of our existing data to provide enriched variables that help turn data into high-value business information.

Leadership / Mentoring

* Collaborate with others
* Systems thinking and consider links between own work, the teams over all work program and broader Strategy and Insights work program
* Contribute positively to the team environment to allow individual and team goals to be met
* Share responsibility for outputs, standards and improvements.

Advice and Support

* Data consultancy, working with business areas to incorporate the effective use of data into service and system design
* Build understanding of new methods by responding to enquiries from internal and external sources
* Understand the limitations of data held in Ministry systems, providing advice on its reliability and reflection of operational practice
* Provide advice on the use of available data to address different business issues
* Present results to a range of internal and external stakeholders.

Communication

* Establish and maintain effective working relationships with key stakeholders within the business units
* Work to thoroughly understand the needs, challenges and opportunities of the business to help guide in data collection, analysis and application
* Act as the trusted advisor and point of contact for all data enquiries from the business, proactively engaging with key customers and providing solutions and suggestions
* Present complex and or technical data in a simplified manner easily understood by the intended audiences
* Write clear reports that synthesise complex results and focus on the business value proposition from the findings of analysis and research
* Create stories from data using data visualisation and storytelling techniques, and collaborate with the Information Designer to ensure best practises for visualising data

Management of Projects / Work Streams

* Self-manage own workload guided by manager to meet agreed deadlines
* Tracks progress on own work items
* Manages a variety of task concurrently and show flexibility of work patterns in order to meet timeframes for delivery
* Contribute to planning, including project plans, schedules and budget.

## Embedding te ao Māori

* Embedding Te Ao Māori (te reo Māori, tikanga, kawa, Te Tiriti o Waitangi) into the way we do things at MSD.
* Building more experience, knowledge, skills and capabilities to confidently engage with whānau, hapū and iwi.

## Health, safety and security

* Understand and implement your Health, Safety and Security (HSS) accountabilities as outlined in the HSS Accountability Framework.
* Ensure you understand, follow and implement all Health, Safety and Security and wellbeing policies and procedures.

## Emergency management and business continuity

* Remain familiar with the relevant provisions of the Emergency Management and Business Continuity Plans that impact your business group/team.
* Participate in periodic training, reviews and tests of the established Business Continuity Plans and operating procedures.

## Know-how

* Relevant tertiary qualification (particularly, Computer Science, Maths, Physics, Statistics, or Operations Research) or equivalent experience
* Experience using statistical and data science languages (SAS, Python, R, Julia, SQL) to be able to clean and manipulate data from different data sources and extract insights from large datasets. Other programming languages may be an advantage
* Demonstrated capability to use a range of machine learning techniques such as propensity modelling, survival analysis, regression analysis, profiling, segmentation, association and network analysis to provide solutions across a range of real-world contexts
* Experience in software engineering and version control tools, and familiarity with cloud platforms is highly desirable
* Experience in analysis of business and market data and public sector data
* Ability to use open source tools and datasets to produce innovative insights and data science products
* Knowledge of taxonomy structures and processing techniques and linking together a wide range of data to improve desired outcomes.
* Experience in data visualisation tools and ability to create stories from data
* Ability to translate information and analysis into outputs which are readily interpreted by highly operational areas and non-technical users
* Experience in investigating and analysing complex problems, and reaching sound conclusions
* Demonstrated ability to write to a high standard (clear, accurate, concise, appropriate to the audience).

## Attributes

* Rigorous intellectual, analytical ability and able to think strategically
* Sound judgement and political sensitivity
* Passion to provide useful high quality information to stakeholders in a way that is timely, meaningful and accessible for them
* Achievement of results in a time pressured environment
* Adapt to the needs of the audience, able to positively influence others to accept ideas
* Highly effective communication (both written and oral) skills
* Strong client focus
* Team player
* Welcome and value diversity, and contributes to an inclusive working environment where differences are acknowledged and respected.

## Key relationships

### Internal

* Data Science and Products team
* Business Intelligence team
* Te Pae Tawhiti Programme stakeholders and leaders
* Modelling and System Analystics team
* Data Management and Information Delivery management and employees
* Strategy and Insights management and employees across all levels
* Other MSD employees as appropriate, including Operations staff

### External

* Relevant Ministers and their employees
* Central agencies and other government organisations
* Non-government organisations and groups
* Researchers and universities

## Other

### Delegations

* Financial – No
* Human Resources - No

### Direct reports - No

### Security clearance - No

### Children’s worker - No

Limited adhoc travel may be required

**Position Description Updated:** April 2025