

Risk Modeller

Reports to:	Risk Science Team Leader	Position Status:	Permanent
Unit:	Science Operations - Geological Systems	Location:	Lower Hutt/Avalon, Auckland, Christchurch
Department:	Society & Infrastructure	Team:	Risk Science
Direct Reports:	Nil	Budget & Delegated Authority:	Nil
Career Step:	Specialist 1 / 2 Career Step 6 / 7	Job Family:	Community Resilience, Policy, Planning & Advisory
Career Path:	Specialist	Date:	June 2026

Role Purpose

This position undertakes implementation of natural hazard and risk science across diverse applications, with a focus on the RiskScape™ multi-hazard risk modelling tool. Leveraging data and computer science expertise, this role fosters collaboration across disciplinary boundaries to deliver solutions that improve resilience and facilitate risk informed decision-making.

Position Priorities and Responsibilities

- Develop risk modelling frameworks, data integration workflows, and machine learning pipelines that combine research insights with data science tools and methodologies.
- Contribute to interdisciplinary risk modelling research and commercial projects.
- Communicate findings, analysis and recommendations through a variety of methods including written publications, oral presentations and workshop facilitation.
- Enhance the risk modelling, and data science and management capabilities of others, through mentoring and training workshops.

Responsibilities of all Employees

- Comply with all Earth Sciences New Zealand policies, procedures and frameworks, and act in line with the organisational values.
- Contribute to our healthy and safe workplace by following HSW expectations outlined in and integrated into our operational practises and HSW frameworks, including undertaking HSW training and participating in health-monitoring programmes relevant to your work.
- Work effectively as a team member by fostering good relationships and supporting others, providing coverage of other functions as required and ensuring workloads are evenly spread.
- Have the flexibility to adapt and develop as the organisation and its environment evolves.

Key Working Relationships

Internal	External
• Project leaders • Project team members	• Catalyst IT

Person Specification

Qualifications and Experience

Essential

- Bachelor's degree in sciences.
- 0-5 years of relevant experience (consultancy, research, or related industry).

Desirable

- Postgraduate degree in science.
- Experience working in the New Zealand science, innovation and technology system.

Skills, Knowledge and Attributes

- Knowledge of risk modelling including an ability to apply mathematical and statistical concepts into risk analyses.
- Data science expertise, including working with big data, statistical analysis, machine learning, data visualisation and cloud computing, and their application to risk modelling.
- Ability to understand natural hazard sciences, including earthquakes, volcano, tsunami, landslide, flooding and climate scenarios.
- Demonstrated proficiency and expertise in Python programming and command line environments, and other programming languages.
- Experience in processing, analysing and visualising geospatial data utilising GIS tools (e.g. QGIS and ArcGIS) and adept in managing databases, applying these in risk modelling.