JOB DESCRIPTION
TELETHON KIDS INSTITUTE

Why is this Job Description being written?	☒ New Position ☐ Replacement Position ☐ Position re-designed ☐ Position not previously described	

POSITION DETAILS:	**Position Title:**	**BIOINFORMATICS SYSTEMS SPECIALIST**
Division:	Research Platforms	**Department:** Bioinformatics
Position reports to: (role)	Manager of Bioinformatics	
Location: *include all possible locations*	100 Roberts Road Subiaco	

POSITION PURPOSE: In one or two sentences briefly summarise the overall purpose of this role, i.e. broadly, **what** this role does and **why**

An experienced informatics specialist is required to help underpin the bioinformatics platform of the Telethon Kids Institute, to help maximise the knowledge gained from biological, epidemiological, drug discovery and other research studies focused on improving child health. Expertise is required to manage the bioinformatics computational platform and to assist with analysing and developing software to analyse, large and complex datasets generated from a diverse range of sources. Research data types include next generation sequencing, population-based cohort, clinical trials, animal studies and a range of publicly available datasets.

KEY RESPONSIBILITY AREAS *(Please list in order of importance)*

Key Position Accountabilities What are the main areas for which the position is accountable	*% of Total Role*	*Inputs:* What are the key activities or tasks to be carried out?	*Outputs:* What are the expected end results?	*Measures:* How it is measured

Systems administration and bioinformatics support	70	• Actively performs system monitoring, user administration, network monitoring, file system and data monitoring and backups to ensure bioinformatics platforms stability and uptime	• A stable, continually evolving bioinformatics platform, that meets the needs to the 90+ current users	• Uptime, stability, utility and user satisfaction with the bioinformatics platform
		• Collaborates closely with Telethon Kids researchers (eg lab-based researchers, clinicians, and biostatisticians) to analyse and manage complex datasets aimed at improving child health across a broad range of areas. This includes preparation of manuscripts for publication as required	• Completed projects, contributions to manuscripts	• Number of new collaborations, manuscript contributions and projects completed. Costs recovered where appropriate
		• Develops new, or deploys existing, bioinformatics tools, pipelines and programs to increase efficiency and capabilities of TKI researchers to manage, analyse and visualise research data	• new bioinformatics tools/programs are setup and utilised on the bioinformatics systems	• Number of new bioinformatics tools/programs setup or developed. Number of projects they are utilised in
		• Prepares and presents at group meetings and seminars as required	• Presentations at seminars / meetings and contributing to presentations by others.	• Number of presentations
		• Helps to establish and revise team policies and procedures; develop and maintain appropriate data, code and software management procedures and systems (eg source code management, backups and version control, archiving)	• Development of new policies (or refinement) and processes for data and software management	• Number of changes or new initiatives to improve data and software management

Training and supervision	10	• Assists with training and guiding research staff to enable researchers to access and utilise the bioinformatics computational platform	• Presentations, workshops and individual meetings will be held to train and assist researchers in using bioinformatics programs.	• Increase in the number of researchers using the platform and/or increase in efficiency or effectiveness of platform use
Professional Development	10	• Maintains up-to-date knowledge and skills of new technologies and techniques informatics (and related) through collaboration, participation in workshops and conferences and other similar opportunities • Contribute positively to Telethon Kids and broader environment, through participation in committees, working groups etc, as needed or requested	• Ongoing professional advancement (as measured across a range of areas)	• Measured by regular meetings with supervisor • Number of contributions
Promote a culture of data science excellence	10	• Works closely with Telethon Kids researchers to help promote the use of bioinformatics and appropriate engagement with bioinformatics staff • Collaborates and integrates closely with researchers to drive a culture of excellence in research data science	• Researchers are more likely to approach bioinformatics staff for assistance. • Increased awareness of the issues surrounding the analysis and management research data	• Feedback from internal clients. • Increase in awareness/utilisation of tools/techniques for effectively managing and analysing research data (eg as measured by use of technologies, procedures etc).

ESSENTIAL SKILLS, KNOWLEDGE AND EXPERIENCE (SELECTION CRITERIA):

Qualifications: what are the minimum educational, technical or professional qualifications required to competently perform role	• A graduate qualification in Computer Science, Information Technology, Computational Biology, Bioinformatics (or related area)
Skills, Knowledge & Experience:	• Experience management (and use) of Linux operating environments • Proficiency in C, C++, Java or other programming languages, and/or Perl, Python or related scripting languages • Proficiency in the design, setup and querying of relational and other types of databases • Demonstrated ability to work collaboratively and form partnerships with other researchers, service providers, professional groups etc. • High level interpersonal, verbal and written communication skills enabling effective communication with both laboratory, clinical, epidemiology and other research staff • Demonstrated problem-solving skills and independent thinking • Experience in a research environment (or similar)

DESIRABLE SKILLS, KNOWLEDGE AND EXPERIENCE (SELECTION CRITERIA):

Qualifications: what are the desired minimum educational, technical or professional qualifications required to competently perform role	A post-graduate qualification in Computer Science, Information Technology, Computational Biology, Bioinformatics (or related area)
Skills, Knowledge & Experience:	• Experience working with and administering VM technologies (especially VMWare) • Experience working with Docker, or other container technologies

SCOPE:

Financial accountability: Does this role have accountability for a budget?

• No

People responsibility: Does this role have any direct reports or indirect reports (through direct reports)?

No. of direct reports	0	No. of indirect reports	0

Next level of supervision

Head of Research Governance and Platforms

Immediate level of supervision

Manager, Bioinformatics

Other roles reporting to immediate supervisor

		This role			

Direct reports (role x no.)