Position Description

Position title:	**Senior Bioinformatician**
Location:	**Adelaide, South Australia**
Reports to:	**SA Genomics Centre Manager**
Department:	**SA Genomics Centre**

Purpose and scope of the position

The South Australian Genomics Centre (SAGC) is a multi-institutional, national genomics and bioinformatics facility that is supported by Bioplatforms Australia (BPA) through the Australian Government's National Collaborative Research Infrastructure Strategy (NCRIS). The SAGC has consolidated genomics and bioinformatics expertise in the state, with a group of ~16 genomics and bioinformatics staff working side-by-side to deliver innovative genomics and bioinformatics solutions across all areas of genomics research, including agriculture, healthcare and ecology.

The Senior Bioinformatician will have a thorough understanding of at least one area of bioinformatics and have the ability to work independently and support junior members of the team. The position will require a sound understanding of software and workflow development best practices, such as source control, test driven programming and continuous integration/deployment. The Senior Bioinformatician will enable research by leading the development of reproducible, standardised pipelines for genomics data analysis including new methods and pipelines.

Key responsibilities

The specific duties include:

- Lead the data management workflow development, including data storage and transfer.
- Develop reproducible analytical workflows with a view to improve internal efficiencies as well as client experiences and to add new SAGC service offerings
- Provide end-to-end bioinformatics analysis support to SAGC clients
- Contribute to/or lead the drafting of reports and publications
- Contribute to/or lead the development and organisation of hands-on training workshops
- Participate in special projects to continuously improve processes, tools, systems and organisation.
- Take reasonable care to protect own health, safety and welfare at work and avoid affecting the health and safety of any other person at work.
- Participate in the implementation of the Institute's Work, Health and Safety Management System and related laws, regulations and guidelines.
- Ensure that duties are performed in keeping with the principles outlined in SAHMRI's Vision, Mission and Values and the **Code of Conduct Policy.**

Special requirements

- Some out of hours work may be required.
- DCSI Employment Screening and Police Checks may be required

👤 Person Specification

Qualifications

- PhD or equivalent experience, in either bioinformatics, computer science, physics, statistics or other relevant discipline

Experience, knowledge and skills

- Have a broad understanding of at least two of the following areas and a significant interest in developing a deep understanding in at least one:
  - Transcriptomics: bulk RNAseq, scRNAseq, spatial transcriptomics
  - Genomics: variant, haplotype and diversity analysis, genome assembly, metagenomics, epigenetics
  - DevOps: version control, test driven development and continuous integration, containerisation using Docker/Singularity
  - Systems biology: multi-omics data integration, statistics
  - Statistics: linear models, ANOVA, hypothesis testing
  - Visualisation: data visualisation and User Interface/Experience design
  - Workflow systems: Snakemake and/or Nextflow
  - Other omic's technology: metabolomics, proteomics
- Prior experience with at least one of the following scripting languages: bash, R, Python and Perl
- A highly collaborative person, a strong team player and an excellent communicator
- Ability to work in an organised, methodical way and to manage multiple ongoing projects
- Attention to detail and a desire to understand a project and the intricacies of the data analysis
- Prior experience working in a high-performance computing environment

Desirable Criteria

- Prior experience working in a client-oriented bioinformatics role
- Prior experience working in a biomedical, agricultural or environmental context
- Experience with programming languages such as C/C++, Go, Rust, Java
- Working in a cloud computing environment
- Linux systems administration
- Support SAHMRI's commitment to reconciliation and acknowledge the importance of working in partnership with Aboriginal and Torres Strait Islander People.
- Able to demonstrate the following SAHMRI Values and Culture:
  - **Excellence** – Bold, Driven, Dynamic
  - **Innovation** – Persistent and Focused
  - **Courage** – Collaborative and Enabling
  - **Integrity** – Embrace Diversity, Demand Equity
  - **Teamwork** – Friendly, Fast, Flexible, Fun