



Bioinformatics Officer

About SAGC

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 ~10 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.

About the Role

An exciting opportunity now exists for an entry level post-doctoral researcher or experienced MSc-level bioinformatician to join the SAGC bioinformatics team. To flourish in this role, you will need to be able to work across multiple different projects and to possess excellent organisational and time-management skills.

This role is primarily responsible for conducting bioinformatics analyses on a wide variety of client projects with varying levels of complexity. You will have a varied and interesting workload across projects in different biological disciplines.

There are significant opportunities for professional growth and development through exposure to data sets from different genomics technologies. Staff are expected to enable research by leading the development of reproducible, standardised pipelines for genomics data analysis and, where necessary, new methods and pipelines. Your career development will be supported and you will be encouraged to publish your research and to collaborate on major funding applications to NHMRC, ARC or MRFF.

You will also be supported to develop your bioinformatics capabilities; ensuring that the SAGC can remain at the forefront of genomics. It is expected that you will have interest in and develop your capabilities in at least one specialist area of bioinformatics.



Key Responsibilities

- Provide end-to-end bioinformatics analysis support to SAGC clients
- Develop reproducible analytical workflows with a view to improve internal efficiencies as well as client experiences
- Contribute to/or lead the drafting of reports and publications

Essential Criteria

- MSc, PhD, or equivalent experience, in either bioinformatics, computer science, physics, statistics or other relevant discipline
- 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, network analysis
 - **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
- To satisfy SAHMRI policies around vaccinations, particularly for COVID-19

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