2023-02-14

To the Information and System Performance team at WA Health,

I wish to apply for your advertised role of a Data Officer – Data Linkage in East Perth, WA. I can provide your team with my years of experience in research. I am experienced in data analysis in a research context and am an enthusiastic student of biostatistics. I can provide your team with my experience in processing biological data. I am capable of processing datasets in Excel, R, python, and am very comfortable using the unix command line and various CLI tools such as grep/ripgrep, awk, and vim.

The skills I can bring to Information and System Performance team include:

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• Experience in using R, python, the unix terminal, and building
simple static websites
• Experience accessing and processing data from online databases using
APIs
• Experience of processing complex population genetics datasets
• Knowledge of Biostatistics and associated technical knowledge of
study design.
• Experience in translational medical research including cell culture,
molecular biology, and animal husbandry
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I am interested in this role as I wish to pivot into a data focused role.

I have experience working with university, research institute, and NHMRC bureaucracies.

Your team can also draw on my diverse experience as a science communicator, quality control technician, and as a biology tutor.

Additionally, I was recently responsible for setting up and managing a research program in precision medicine at the Hunter Medical Research Institute. This included setting up support programs and a conference (Cancer and Precision Medicine Program 2022).

See below for my response to criteria.

Yours Sincerely,

Adam Graham

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1. Demonstrated experience in the management of data and computerised information systems and databases.

As a research student and later research assistant I have been involved in generating data, processing it, and then analysing it. I have used R, Python, and Excel for the latter steps. I have accessed large databases using APIs but have limited experience working internally with SQL databases. In my previous Research Assistant role I worked with two large datasets; the UK Biobank and the Australian Schizophrenia Research Bank. I wrote scripts that made filtering these datasets for specific variables (user selectable) based on the specific way the dataset was setup on our local research computer. You can view the repo for these scripts here. I also used genetics specific tools such as `plink` and `SAMtools` to analyse these datasets.

Additionally, I did some bioinformatics work to find specific point mutations in the human genome to help less technical students do their labwork. I used `SAMTools` and `VCFtools` to filter the data and then used a `bash` script to find the specific mutations.

You can view some of my personal projects at my github pages site here.

2. Ability to work collaboratively in a team environment.

My role as an event assistant and a science show presenter both required I interact with individuals across a broad cross-section of society. As a research assistant, I have been responsible for managing a research program and have had to work with a range of stakeholders including researchers, clinicians, and patients. Since I need to take initiative with setting up a pilot grant program and a conference, I had to communicate clearly and efficiently with the program leaders so they could quickly understand the scope of the project and what decisions were required from them, or changes they wanted to make to my proposals.

Additionally, I have worked closely with researchers on a number of research projects in immunology, psychiatric medicine, and rare-disease genetics. I have also worked with clinicians on a number of research projects in cardiology and rare-disease genetics.

3. Effective interpersonal and communication skills with the ability to maintain positive working relationships to achieve outcomes.

I have presented both technical and non-technical information to a variety of audiences. Technical talks have included tutorials on bioinformatics tools, and medical research, while non-technical talks have included entertaining science outreach presentations. Both of my Research Assistant roles required extensive communication with individuals from clinical, research, and adminstration backgrounds.

4. Demonstrated problem solving skills including conceptual and analytical skills.

My years in research have lead me to develop a strong problem solving skillset. I have used this skillset to solve a number of novel problems. I have been responsible for setting up and managing a research program in precision medicine at the Hunter Medical Research Institute. This included setting up support programs and a conference (Cancer and Precision Medicine Program 2022). I have also been responsible for setting up and managing a research program in precision medicine at the Hunter Medical Research Institute. This included setting up support programs and a conference (Cancer and Precision Medicine Program 2022).