ROLE PROFILE

Job Title:	Research Software Engineer: Parallelisation specialist
School/Department:	Digital Research Service (IS)
Job Family and Level:	APM4
Contract Status:	Fixed term for 4 years and 11 months
Hours of Work:	Full-time (36.25 hours per week)
Location:	Jubilee Campus
Reporting to:	Team Leader of Digital Research Service

Purpose of the New Role:

The purpose of this role is to act as an analyst to support the aims of the service by delivering high quality outputs. They are to support the work of the senior members of the team. They will work independently on individual projects and deliver analyses and software within agreed timeframes and budgets.

	Main Responsibilities	% time per year
1.	**Undertake digital research projects** • Take responsibility for the definition, documentation and satisfactory completion of collaborative digital research projects defining requirements, timescales priorities, milestones and managing risks to the success of the project. • Design, construct, test and document digital research pipelines to support the needs of the researchers • Support researchers in understanding the benefits of following data handling best practices • Support researchers in understanding the benefits of utilising HPC resource	75%
2.	**Promote the service** • Actively represent Digital Research Service with a remit to offer specialist expertise and guidance • Promote awareness, access and use across the institution • Provide researchers with access to expertise and advice that has a strong impact on improving research quality	10%

3.	**Deliver Output** • Support researchers by contributing to research papers to be published in academic literature	5%
4.	**Personal Development** • Develop own skills and professional capability in line with the needs of the service. • Maintain an awareness of technical developments, tools and ideas in research computing, including attending seminars, technical briefings, conferences and technical groups	5%
5.	• Any other duties appropriate to the grade and role of the person appointed.	5%

Knowledge, Skills, Qualifications & Experience

	Essential	Desirable
Qualifications/ Education	• Postgraduate degree in a relevant computational field **OR** • Relevant professional experience in a related field, e.g. providing analytics or software development in support of research and development in an academic or industrial setting.	
Skills/Training	• Experience developing parallel code and applications on a traditional on-premise HPC or Cloud-based infrastructure (e.g. Azure) • Experience of porting codes to different architectures on a traditional on-premise HPC or Cloud-based infrastructure (e.g. Azure) • Experience in either high performance computing, distributed or shared memory systems, or GPU acceleration on a traditional on-premise HPC or Cloud-based infrastructure (e.g. Azure) • Excellent oral and written communication skills, including the ability to communicate with clarity on complex information. • High analytical ability to analyse and illuminate data, interprets reports, evaluate and criticise texts and bring new insights • Strong organisational, collaborative, and communication skills for dissemination of results.	• Understanding and experience of research in the commercial sector. • A broad understanding of a mixture of HPC, shared memory and GPU technologies • Experience working with OpenMP / Open MPI
Experience	• Experience in data gathering and data aggregation in scenarios of high volume numerical data	• Experience in working in a service-orientated group.

	• Experience in use of research methodologies and techniques to work within area • Experience of developing new approaches, models, techniques or methods in research area.	• Experience in utilising machine learning techniques on real world datasets

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