Candidate Information

Position:	Computational Research Fellow (Co-Centre for Sustainable Food Systems)
School/Department:	School of Biological Sciences
Reference:	24/112224
Closing Date:	Monday 11 November 2024
Salary:	£39,922 to £47,631 per annum.
Anticipated Interview Date:	Friday 22 November 2024
Duration:	2 years

JOB PURPOSE:

The Co-Centre for Sustainable Food Systems (https://www.foodcocentre.org/) brings together academics from multiple disciplines, including the natural sciences, trade, economics, politics, political economy and law. It will build on the shared objectives to develop a robust, resilient and sustainable food system that meets changing consumer demands. It will also look to foster cooperation and consensus to develop an agri-food sector that underpin national economies and will foster R&I to accelerate radical transitions towards a more environmentally and economically sustainable and transparent agri-food sector. The Co-Centre presents a unique opportunity to rapidly develop innovative and transformative solutions to transition the food system and position Ireland and the UK as a research and innovation global leader for positive and sustainable change in the transition to climate-neutrality by 2050.

We are seeking an enthusiastic individual to work within the Data Modelling Platform of the Co-Centre. This computational research role within the Institute for Global Food Security at Queen's University Belfast will focus on consolidation and integration of food systems data from across the Co-Centre, developing and implementing computational solutions to promote Findable, Accessible, Interoperable, and Reusable Data practices and working in conjunction with researchers from Momentum One Zero (https://momentumonezero.com/) to explore approaches for best use of AI across the Co-Centre.

This role will involve engagement with researchers across the Co-Centre to promote best practice in data collection and re-use and to generate data catalogues to facilitate future modelling activities. In addition to scientific research duties, the successful candidate will work closely with platform PIs in the management of the overall work plan to deliver project deliverables, reports and scientific papers, to develop research funding proposals, and to support the training and supervision of other research team members.

MAJOR DUTIES:

1. Engage with Co-Centre researchers and industry partners to identify food-system datasets suitable for modelling activities.
2. Develop SOPs for the adoption of data ontologies to organise and structure food system data in the Co-Centre.
3. Implement data catalogues for the Co-Centre that captures information on available food system data and their metadata.
4. Explore with colleagues in Momentum One Zero the potential for the application of AI to the Food Systems data in the Co-Centre.
5. Participate and support other activities to achieve the goals of the Data Modelling platform.
6. Monitor and report on all research activities across the Data Modelling platform to ensure that research objectives and deliverables are completed on time.
7. Develop links with relevant research groups, industries, and external bodies to enable completion of research objectives and create opportunities for future research projects and new funding opportunities.
8. Engage and participate in Education and Public Engagement (EPE) activities of the CoCentre.
9. Develop a high-quality publication record by publishing Co-Centre outputs in refereed journals and presenting research findings at scientific conferences and meetings.
10. Prepare reports on research progress and activities for internal and external audiences.
11. Assist in the development of skills and competence in others (for example through the supervision of undergraduate and postgraduate research students).

12. Carry out any other duties designated by line manager which fall within the general ambit of the post.

ESSENTIAL CRITERIA:

1. *Have or about to obtain a PhD degree in Computer Science, Computational Biology or other relevant discipline (*must be obtained within 3 months of commencement of employment).
2. Relevant practical experience handling and analysing large datasets.
3. Experience in approaches for generating findable, Accessible, Interoperable and Reusable (FAIR) data.
4. Track record of senior author publications commensurate with stage of career.
5. Demonstrated knowledge of Python, R or other programming languages suitable for the analysis of large datasets.
6. Excellent organisational and administrative skills including a proven ability to work to deadlines.
7. Ability to supervise and coordinate the work of others within a research team.
8. Excellent interpersonal communication skills and ability to present complex information including scientific report writing.
9. Collaborative attitude and ability to work within an interdisciplinary team.
10. Demonstrable intellectual ability.
11. Willingness to travel as required across Co-Centre partner sites and to engage with industry partners and collaborators.

DESIRABLE CRITERIA:

1. Experience working with biological datasets, especially as related to Food Systems.
2. Experience in the use of FAIR principles in the generation of scientific data catalogues.
3. Demonstrated knowledge of state-of-the-art database approaches that support FAIR principles.
4. Demonstrated knowledge of AI approaches for diverse biological datasets.

ADDITIONAL INFORMATION:

Informal Enquiries can be directed to: Dr. Lucy Dillon - l.dillon@qub.ac.uk