



Candidate Information

Position:	Research Fellow (2 years)
School/Department:	Institute for Global Food Security
Reference:	19/107473
Closing Date:	Wednesday 29 May 2019
Salary:	£33,199 - £39,610 per annum (potential to progress to £43,266 per annum through sustained exceptional contribution)
Duration:	2 years

JOB PURPOSE:

To be an active member of the research team; planning and delivering the main objectives of a specific research project so the overall research aims are fulfilled.

MAJOR DUTIES:

1. To undertake research under supervision of the principal investigator.
2. Aid the design and development of working models, statistical, mathematical, or simulation, of a food system. Although the eventual developed model will be primarily an IT based solution, the work will be multi-disciplinary including but not limited to: food systems, food science, economics, environment, supply chain, predictive analytics and risk analysis. While the post-holder will not be expected to have expertise in all areas, they will be expected to be comfortable discussing and developing the model across disciplines.
3. Carry out modelling, develop and test algorithms, machine learning, statistical analyses, critical evaluations, and interpretations using methodologies and other techniques appropriate to area of research.
4. Communicate orally and through e-mail effectively to line manager and those involved in the project.
5. Aid effective team working within the group led by the Principal investigator.
6. Supervision of students alongside the Principal Investigator.
7. Present regular progress reports on research to members of the research group or to external audiences to disseminate and publicise research findings. To undertake research under supervision within a specific research project.
8. Prepare, in consultation with supervisor, material for publication in national and international journals and presentations at international conferences.
9. Carry out routine administrative tasks associated with the research project/s to ensure that project/s are completed on time and within budget. These might include organisation of project meetings and documentation, financial control, risk assessment of research activities.
10. Carry out occasional undergraduate supervision, demonstrating or lecturing duties within the post holder's area of expertise and under the direct guidance of a member of academic staff.
11. Read academic papers, journals and textbooks to keep abreast of developments in own specialism and related disciplines.

Planning and Organising:

1. Plan for specific aspects of research programmes. Timescales range from 1-12 months in advance and contribute to research group planning.
2. Plan for the use of research resources, laboratories and workshops where appropriate.
3. Plan own day-to day activity within framework of the agreed research programme.
4. Plan up to a year in advance to meet deadlines for journal publications and to prepare presentations and papers for conferences.
5. Coordinate and liaise with other members of the research group over work progress.

Resource Management Responsibilities:

1. Ensure research resources are used in an effective and efficient manner.

2. Provide guidance as required to support staff and any students who may be assisting with research.

Internal and External Relationships:

1. Liaise on a regular basis with colleagues and students.
2. Build internal contacts and participate in internal networks for the exchange of information and to form relationships for future collaboration.
3. Join external networks to share information and ideas.
4. Contribute to the School's outreach programme by establishing links with local community groups, industries etc.

ESSENTIAL CRITERIA:

1. Holds a PhD in a relevant area (i.e. modelling, big data, food systems, supply chain).
2. 3 years recent relevant research experience.
3. Experience of modelling;
 - Regression/Statistical analysis (mixed models, GLM, time series, etc.),
 - Monte Carlo simulation
 - Hypothesis testing
 - Experimental design
 - Classification and Regression Trees (CART)
 - Principal Component analysis
4. Experience of peer-reviewed publication in a relevant area of research.
5. Sufficient breadth and depth of specialist knowledge in the discipline and of research methods and techniques to work within established research programmes.
6. Ability to work well both on their own as well within a multi-disciplinary group.
7. Ability to communicate complex, multidisciplinary, information clearly.
8. Demonstrable intellectual ability.
9. Ability to assess and organise resources.
10. Flexibility regarding working hours.

DESIRABLE CRITERIA:

1. Experience-
 1. R, MATLAB or Python programming,
 2. Relational database (SQL)
 3. Knowledge of cloud systems
 4. Web scraping
 5. Experience of physics based process modelling
2. Food systems/supply chain experience
3. Experience of supervising undergraduates and/or postgraduate students
4. Experience of presenting to the scientific community i.e. conference talks.