

## Candidate Information

<b>Position:</b>	Research Fellow - Data Analytics
<b>School/Department:</b>	Mathematical Sciences Research Centre
<b>Reference:</b>	20/108257
<b>Closing Date:</b>	Monday 3 August 2020
<b>Salary:</b>	£33,797 to £35,845 per annum
<b>Anticipated Interview Date:</b>	Wednesday 19 August 2020
<b>Duration:</b>	The post is fully funded by the Northern Ireland Strategic Investment Board (SIB) for a two-year period.

### JOB PURPOSE:

To play a lead role in the Data Analytics Research and Exploitation (DARE) initiative and an active member of the Mathematical Sciences Research Centre at Queen's University. This will involve assisting in the planning and delivery of data analytics research and application to meet challenging client needs in the NI public sector and economy.

### MAJOR DUTIES:

1. Problem definition with clients: undertaken through desk-based research, direct client liaison, stakeholder consultations, etc.
2. Solution design/wire-framing: undertaken through desk-based research, agile development processes.
3. Data sourcing and data management; data audit, specification, requests, data cleaning, matching, data warehousing and data protection.
4. Analysis: research and development of analytical solutions, data exploration, statistical modelling and testing.
5. Solution development: coding solutions in R, Shiny, and/or other appropriate environment.
6. Solution deployment: deployment of solution into client environment, training, feedback, version control, solution maintenance.
7. Reporting: Write up results of own work and contribute to the production of research reports, high impact journal publications and future funding proposals.
8. Present work as appropriate at local, national and international conferences or seminars.
9. Read academic papers, journals and textbooks to keep abreast of developments in data analytics and related disciplines.
10. Carry out routine administrative duties as requested, e.g. arranging research group meetings, maintaining research group website.
11. Carry out occasional undergraduate supervision, demonstrating or lecturing duties within the School of Mathematics and Physics and under the direct guidance of a member of academic staff.
12. Carry out any other duties designated by a line manager and which fall within the general ambit of the post.
13. Identify areas for future development of the research.
14. Attend training courses where appropriate to deliver the objectives of the project.

### Planning and Organising:

1. Plan own day-to-day activity within the framework of the agreed DARE programme.
2. Contribute to the planning of DARE projects, reports and publications etc usually 1-6 months in advance.

### Resource Management Responsibilities:

1. Ensure DARE 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 with colleagues from Queen's University Belfast and Strategic Investment Board and support staff on routine matters.
2. Make internal and external contacts to develop knowledge and understanding and form relationships for future collaboration.
3. Attend and contribute to relevant meetings.

**ESSENTIAL CRITERIA:**

1. Have or about to submit a PhD in Statistics, Data Analytics, Operational Research, Mathematics or Computing.
2. At least 3 years relevant research experience  
Experience in the design and delivery of data analytics using R, SAS, Matlab or similar.
3. Demonstrate an ability to publish in peer reviewed journals.
4. Ability to contribute to broader management and administrative processes.
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 communicate complex information clearly in both written and spoken English.
7. Ability to interact with research colleagues and support staff.
8. Evidence of strong presentation skills and ability to prepare clear and concise presentation materials.
9. Good oral, written and presentation skills.
10. Demonstrable intellectual ability.

**DESIRABLE CRITERIA:**

1. PhD Statistical Modelling.
2. Experience of application development (e.g. Shiny) and UX.
3. Experience in business consulting, problem definition, solutions design, agile methodologies.
4. Previous experience presenting statistical concepts at conferences or seminars.