

Candidate Information

Position:	Research Assistant - Supply Chain Recommendation Systems
School/Department:	School of Electronics, Electrical Engineering and Computer Science
Reference:	25/112489
Closing Date:	Monday 28 April 2025
Salary:	£33,785 per annum
Anticipated Interview Date:	Tuesday 13 May 2025
Duration:	11 months

JOB PURPOSE:

To be a highly productive, ambitious, and collaborative member of the Advanced Research and Engineering Centre (ARC) within Northern Ireland.

The Research Assistant will explore operable business processes over a complex network covering multiple data sources. Depending on the type of data, the complexity of the porting software, and the dependencies between the data, these data sources may have synchronous, asynchronous, or both characteristics. The business networks make decisions based on these inputs and are susceptible to error due to the data's multiple interconnections. As a result of the associated complexities and interdependence of the data points, several risky decision-making factors are frequently overlooked when a model of operations is so intricate. The Research Assistant will expand the understanding of the current PwC Supply Chain landscape and generate valid methods to automate tasks such as bid-free procurement with more comprehensive and novel AI-assisted strategies along with the development of the proof of concepts.

The post is a critical role, and as such, successful applicants will have responsibilities in independent research, planning, outreach, and collaboration both internally and externally. You will need to engage with research topics and apply high standards to the research code and systems you develop. A selection process will determine the strongest candidate across the project who may be offered this role to work on PwC-sponsored research.

MAJOR DUTIES:

1. To be actively involved in the research programme as directed by the line manager/project supervisor and focus on developing an enterprise-level solution backed by strong research on the subject-matter.
2. Carry out routine administrative tasks associated with the research project/s to ensure that projects are completed on time.
3. Developing proof-of-concept to justify the research.
4. Carry out appropriate analysis and write up results of own work and lead a new direction as the project progresses.
5. Present regular progress reports on research to members of the research group or external audiences to disseminate and publicise research findings.
6. Use of road mapping/project development tools to share ongoing status updates.
7. Contribute to the production of research reports, publications, and proposals.
8. Any other duties that the programme supervisor may reasonably request.

ESSENTIAL CRITERIA:

1. 2.1 Honours Degree (or equivalent) in Applied Mathematics, Computer Science, Electronics, Electrical Engineering, or a closely related discipline.
2. Relevant experience to include:
 - Recent, relevant research experience in at least one of the following: risk assessment, AI-modelling, procurement and supply chains.
 - Experience developing recommendation systems.
 - Demonstrable experience of software development systems (preferably Python/Java/C#).

3. Experience of working effectively as part of a research team in the development and promotion of the research theme.
4. Strong software development skills and proven track record of developing proof of concepts.
5. Sufficient breadth and depth of specialist knowledge in the discipline and of research methods and techniques.
6. Ability to contribute to broader management and administrative processes.
7. Contribute to the School's outreach programme by links with industry, community groups etc.
8. Practical problem-solving skills, independence of thought and initiative.
9. Ability to assess and organise resources.
10. Ability to communicate complex information in English effectively in oral and written format to technical and non-technical audiences.
11. Ability to build relationships with a wide range of people and roles at different levels of seniority and to influence decision making.
12. Ability to manage self and prioritise workload.
13. A pro-active approach to work and team development.
14. Commitment to continuous professional development.
15. Ability to meet the mobility requirements of the post including the travel to project partners as required by the role.

DESIRABLE CRITERIA:

1. A publication record which is commensurate with career stage and experience; OR Proof of concepts towards recommendation system.
2. Mathematical skills for conceptualisation, modelling, optimisation, and analysis of problems.

ADDITIONAL INFORMATION:

Informal enquiries may be directed to Mr Martin Reid (martin.reid@qub.ac.uk).