RESEARCHER JOB DETAILS

School of Computing Science

Research Assistant/Associate in

Secure Computation

Grade: F **Vacancy Ref:**

Main Duties and Responsibilities

To conduct research in the area of secure computation, design novel cryptographic data structures and associated protocols for efficient secure computation, as well as apply them in domains such as cloud computing and data mining in order to solve real-world security/privacy problems.

1. Formulate research problems based on scoping exercise, develop research outcomes that address these problems, and apply/evaluate these outcomes.
2. Write or co-author research papers, book chapters or articles that report on such problems, outcomes, and evaluations
3. Attend relevant international and national workshops and conferences, and give presentations as necessary.
4. Contribute to academic dissemination activities, as well as help organising dissemination events, e.g. workshops.
5. Direct the work of small research teams including undergraduate and postgraduate students.
6. Develop contacts and research collaborations within the university and the wider community.
7. Undertake any necessary training as required.
8. Contribute to writing bids for research grants.
9. Work to deadlines and manage, with support, competing priorities.
10. Liaise with research colleagues and support staff on day-to-day issues.
11. Work under the supervision of the Principal Investigator.
12. Work with other researchers in a team and collaborate with industrial research labs and other leading universities.

Research Role Profile

As part of our commitment to career development for research staff, the University has developed 3 levels of research role profiles. These profiles set out firstly the generic competences and responsibilities expected of role holders at each level and secondly the general qualifications and experiences needed for entry at a particular level. It is unlikely that any single member of staff will be applying all these competences at any one time but he or she would be expected to display most of them over a period of time.

Please follow this link to our Research Role Profiles

Person Specification

Knowledge (inc. qualifications)

Essential

- PhD or nearing completion in a relevant subject area e.g. Computing Science
- A good understanding of cyber security, including the principles, the common problems, the landscape and the research methodologies.
- A good understanding of cryptography, including the techniques commonly used, protocol/algorithm design, proof and analysis, and trade-offs between security and functional properties.

Desirable

- A good understanding of one or more areas: including operating systems, computer networks and distributed systems, data mining and formal methods.

Experience and Achievements

Essential

- A track record in security/cryptography with particular focus on secure computation or related techniques, and their use in the context of critical application environments.
- Experience in writing scientific papers, and presenting research in public.

Desirable

- A strong publication record in the relevant areas.

Skills (professional, technical, managerial, practical)

Essential

- Good communication skills, able to collate and present information effectively to meetings and provide positive input into discussions and contribute to written reports, and to liaise with a wide range of staff from different disciplines.
- Ability to manage and prioritise own workload effectively to meet deadlines.
- Ability to take the initiative to identify problems and suggest solutions

Desirable

- Good programming skills (C++/Java, parallel/GPU computing experience is a plus).
- Ability to coordinate and motivate others to work effectively together.

Essential

- Willingness to work as part of a team and to be open-minded and cooperative.
- Willingness to travel both within the United Kingdom and abroad to conduct research and attend conference.

Desirable

- An open, flexible and positive approach to working in a constantly changing environment.

For full details about this vacancy and essential information on how to apply, visit our Job Vacancies web page at http://www.ncl.ac.uk/vacancies/