

Research Assistant/Associate (Modelling Dementia Progression)

School of Computing

Faculty of SAgE

Research Role Profile

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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.

Specific Responsibilities of Position

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1. To analyse MRI data and write up papers arising from such analyses and present such findings at research conferences.
2. To provide analysis of neuroimaging studies within the research group.
3. To develop models of dementia progression across brain networks.
4. To use and develop statistical tools to analyse network data.
5. To provide guidance to other staff and students (including possible supervision of postgraduate and undergraduate project students) as agreed with supervisor.
6. To initiate or participate in inter-disciplinary collaborations as agreed with supervisor; in particular to collaborate with colleagues in South Korea (Korea University) within this project.
7. To develop novel research ideas and paradigms to investigate symptom aetiology in dementia patients and apply for grant funding for these.
8. To liaise with the Investigators to aid in organising workload and the provision of support for the satisfactory operation of research activities, facilities and equipment.
9. To keep excellent records of all experimental procedures and outcomes, enabling interpretation with team members and delivery of project milestones.

Person Specification

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		Essential or Desirable
	Qualifications	
1	A good undergraduate degree (1 st / 2:1) in mathematics, physics, computer science, engineering, neuroscience, psychology, biological sciences or related fields.	Essential
2	PhD awarded (or nearing completion) in a relevant discipline.	Essential
	Knowledge, Skills and Experience	
1	Existing knowledge or a keen interest to understand the biological processes of brain network changes.	Essential
2	Expertise in leading the development of software projects.	Essential
3	Expert in C++, Python, or Matlab programming.	Essential
4	An ability to communicate effectively via oral and written mediums.	Essential
5	Ability to interact with people from different disciplines.	Essential
6	Competent in using a Linux / OS X environment.	Desirable
7	Presentation of work at scientific meetings.	Desirable
8	Publication of work in peer-reviewed conferences and journals.	Desirable
9	Track record of previous funding through studentships, fellowships or awards.	Desirable
10	Experience with software engineering.	Desirable
11	Experience with network analysis.	Desirable
12	Expertise in analysis of neuroimaging and neurophysiological data.	Desirable
13	Experience of public and patient engagement.	Desirable
14	Experience with basic and advanced statistical analyses.	Desirable
15	Experience of human based research studies (either clinical or non-clinical).	Desirable
	Attributes/Behaviours	
1	Capacity for original thought.	Essential
2	Enthusiastic and hard working.	Essential
3	Candidates must be able to spend time away from Newcastle visiting collaborators in South Korea and elsewhere, and attending international conferences.	Essential

HR Office Use Only	
SAP Position Number:	
Grade:	F
Effective Date:	28/05/2019