Title: Characterising Behaviour from Sensor Data

Type of award PhD Research Studentship

Department Computer Science

Scholarship Details Scholarship covers full UK/EU (EU applicants who have been resident in the UK for 3 years prior to 1st September 2018) PhD tuition fees and a tax-free stipend at the current RCUK rate (£14,777 in 2018/19). EU national’s resident in the EU may also apply but will only qualify for PhD tuition fees.

Duration 3 years

Eligibility Home/EU

Latest Start Date 1 October 2019

PhD Topic Background/Description
This fully-funded post is part of the MRC-funded CUBOID project that is developing novel behavioural models to passively detect signatures of dementia from unobtrusive in-home sensor networks. CUBOID’s aims are to demonstrate that passive monitoring will reveal previously unseen behavioural biomarkers of early Alzheimer’s disease. CUBOID will leverage the state-of-the-art SPHERE in-home sensing platform in a longitudinal data capture campaign to acquire data from several sensing modalities (including, but not limited to): environmental (e.g. PIR, temperature, humidity), RGB-D (e.g. silhouette, bounding box), on-body (e.g. accelerometer), voice and text. As well as sensor data, clinical evaluations will also be performed (including neurophysiological tests, brain imaging) over a 12-month period starting in mid-2018.

We are seeking an exceptional candidate to take up a PhD studentship focusing on machine learning and healthcare analysis for early diagnosis/tracking of Alzheimer’s disease. The successful applicant will benefit from close interaction with the growing digital health group, intelligent systems lab and the wider interdisciplinary digital health team at the University of Bristol.

Further Particulars
Doing research at the University of Bristol
The quality of research at the University of Bristol places it within the top five Universities in the UK based on the Research Excellence Framework and Times higher Education rankings 2014-15. The PhD candidate will be a part of a friendly and diverse community. The University has a Doctoral College (BDC) which offers approximately 200 courses, interactive workshops and seminars as a part of the University’s Personal and Professional Development Programme for PGR students. The BDC organises University-wide events and provides a hub of information, guidance and resources to help researchers to get the most of their time at Bristol.
**Candidate Requirements**
We are looking for an enthusiastic student with a minimum 2.1 or first-class degree in Mathematics, Computer Science Engineering or a related discipline.

The ideal candidate will have basic skills and knowledge in machine learning; signal processing, data processing/visualisation.

**Informal enquiries**
Please email Dr Niall Twomey (niall.twomey@bristol.ac.uk) or Dr Raul Santos-Rodriguez (enrsr@bristol.ac.uk)
For general enquiries, please email sceem-pgr-admissions@bristol.ac.uk

**Application Details**
To apply for this studentship submit a PhD application using our [online application system](http://www.bristol.ac.uk/pg-howtoapply)

Please ensure that in the Funding section you tick “I would like to be considered for a funding award from the Computer Science Department” and specify the title of the scholarship in the “other” box below with the name of the supervisor.

Closing date for applications: **1 March 2019**

**Apply now**