What do you mean? Automatic identification of language barriers for effective communication with government organisations (CSEE/APR18/06)

The School of Computer Science and Electronic Engineering at the University of Essex is pleased to announce a PhD studentship available in "What do you mean? Automatic identification of language barriers for effective communication with government organisations".

This studentship will start from 23 April 2018 and once awarded, you'll receive the scholarship for three years of your PhD (subject to satisfactory progression).

The studentship includes:
- a fee waiver equal to the Home/EU fee (for 2017/18, £4,120). International students will need to pay the balance of their fees.
- a stipend equivalent to the Research Councils UK National Minimum Doctoral Stipend (£14,553 in 2017-18)

There is an ever-increasing amount of information being generated by organisations and individuals, and a considerable amount is in the form of texts. Language is one of the rich means of communication that can be used to understand the needs and desires of individuals, and provide important information that is relevant for them. However, a crucial challenge is in providing information in an accessible manner to individuals with a variety of backgrounds, in rich multicultural and multilingual communities, with different language profiles of both native and non-native speakers, of varying ages and levels of language abilities and which may include clinical conditions.

The goal of this project is to use data science and natural language processing to investigate techniques for building language profiles of specific groups of speakers. Clustering methods will be employed to define target clusters of speakers on the basis of information about their age, socio-economic context, and education, and based on their language profiles methods for automatic readability assessment will determine whether information from a given document is optimally written for targeting that group. This will enable the use of information customisable to the language abilities of different groups of speakers, and can be used to increase accessibility to digital content.

The successful applicant will be supervised by: Dr Aline Villavicencio, Dr Renato Amorim and Professor Slava Mikhaylov.

Additional questions and queries about the studentship to be addressed to: Dr Aline Villavicencio avill@essex.ac.uk , Dr Renato Amorim r.amorim@essex.ac.uk and Professor Slava Mikhaylov s.mikhaylov@essex.ac.uk.

Entry requirements

At a minimum, the successful applicant will have a good honours BSc degree (1st class or high 2:1, or equivalent) in computer science or related subjects. An MSc with Merit or Distinction is desirable (but not essential for students with a first class degree). Strong

analytical and mathematical skills are required, as well as good programming skills. Knowledge of natural language processing and machine learning are desirable but not essential.

How to Apply

- To be considered for this Scholarship applicants are required to apply for their PHD course in the usual way via the University of Essex online admissions application process here: website, (including uploading all supporting documents required) by the deadline of **Friday 23 February 2018**.

- Please note on your PG Admissions application form in the 'Proposed research topic or area of research' field that you wish to apply for this scholarship, quoting Ref CSEE/APR18/06.

- In addition to your main online PHD application, you are also required to submit a separate application form, which can be accessed here and submit separately to: csee-schooloffice@essex.ac.uk by the deadline of **Friday 23 February 2018,** quoting Ref CSEE/APR18/06.

- Applicants will be informed of the outcome of their application for their PHD course and the scholarship award by the end of March 2018.

For further information on our current areas of research please refer to our research interests and staff profiles.

If you have a disability and would like information in a different format telephone (01206) 873521/874588.