

Job Profile

Job Description

Job Details			
Job Title:	Postdoctoral Research Assistant		
School:	School of Electronic Engineering and Computer Science (EECS)		
Reports to:	Principal Investigator		
Grade:	4 through 5	Working hours per week:	Full-Time
Appointment period:	Fixed Term		
Current Location:	Mile End		

Job Context
<p>The School of Electronic Engineering and Computer Science (EECS) is an exciting and dynamic environment with a reputation for excellence in both research and teaching.</p> <p>As a multidisciplinary school, our researchers work with the arts and sciences collaborating with psychologists, biologists, musicians and actors, mathematicians, medical researchers, dentists and lawyers. We are well known for our pioneering research and pride ourselves on our world-class projects. We are 11th in the UK for quality of computer science research (REF 2014) and 6th in the UK for quality of electronic engineering research (REF 2014).</p> <p>Our academics undertake world-leading research in a lively and supportive research community. The results are original, informative, often surprising or questioning, and always significant, achieving impact on wider society and within specialist areas of knowledge.</p>

Job Purpose
<p>To undertake research investigations in collaboration with and under the supervision of the investigators in order to realise the objectives of the research project EMBEDDIA, funded by the European Commission's Horizon 2020 programme and planned to run for three years from January 2019.</p> <p>The EMBEDDIA project will investigate methods based on cross-lingual word embeddings, use them to develop natural language processing (NLP) technologies for less-resourced languages, and deploy them to produce efficient, accurate applications for the news media industry. QMUL's part of the project is focused on the informal, conversational language used in social media and user-generated comments: developing suitable NLP models for analysing and understanding these comments and transferring those across languages to deploy in applications. An important part of this will be the development and adaptation of word embedding models that are sensitive to informality, ambiguity and context of use.</p> <p>The role of this post is to undertake the core computational NLP research: including developing new context-sensitive cross-lingual word embedding models, implementing them within NLP tasks and evaluating them via suitable computational experiments. Some travel to other EU countries will be required to take part in regular project meetings; opportunities for more extended working visits, particularly to the project coordinating institution in Ljubljana, Slovenia, may be available.</p>

Main Duties & Responsibilities
<ol style="list-style-type: none">1. Responsible, under the general guidance of the PI, for undertaking the programme of work, including developing and evaluating suitable computational models of meaning representation.2. Prepare reports of appropriate research results for public presentation through seminars and conferences. Contribute to writing papers summarising research findings for publication in peer-reviewed journals (of high international standing where possible). Contribute to other reports where possible.3. Travel to partner institutions in EU countries for project meetings and occasional extended working periods (not normally longer than 2 weeks).4. Comply with any requirements of the awarding authority.5. Conduct empirical research as required by the research programme.

Main Duties & Responsibilities

6. Maintain appropriate databases and keep accurate written and computerised records and to ensure that these records are stored in a secure place, and to maintain confidentiality of all electronically stored personal data in line with the provisions of the Data Protection Act.
7. To attend and participate in the School academic activities.
8. To show a professional attitude to matters of laboratory hygiene, organisation and safety, and to observe and to take an active role in fulfilling all statutory health and safety regulations.
9. The duties of the post outlined above are not exhaustive, and the postholder will be expected to be co-operative and flexible, undertaking such administrative and other duties as may from time to time be reasonably expected of a member of research grade staff in a university.
10. Make research initiatives and original contributions to the research programme wherever possible, and to contribute freely to the team research environment in a manner conducive to the success of the research project as a whole.
11. Monitor research findings with a view to commercial exploitation, and to inform the Head of School (or line manager, as appropriate) and Head of Innovation & Enterprise of any appropriate novel research outcomes.
12. Assist in the supervision of student projects, as necessary.
13. Work with external and internal collaborators as agreed with the PI, providing, receiving and presenting complex information.

General:

1. Deal with projects in a professional manner using judgement and discretion and comply with school health & safety policies, local rules and standard operating procedures; ensure that appropriate risk assessment procedures are followed and documented.
2. Comply with relevant College policies and regulations with due regard to financial matters, harassment, equal opportunities, public interest disclosure, health and safety, intellectual property and patenting, data protection or any other rules, regulations or codes binding on the member of staff.
3. Undertake and successfully complete mandatory training as required by the School and participate in the College Appraisal Scheme and demonstrate a commitment to continuing professional development; These duties will be subject to review in line with the changing requirements of the School or College, and with the development needs of the postholder as identified through regular review/appraisal processes.

The above list of responsibilities is not exhaustive and the jobholder may be required to undertake other duties commensurate with the level of the role, as reasonable requested by their line manager.

This job description sets out the duties of the post at the time it was drawn up. Such duties may vary from time to time without changing the general character of the duties or level of the responsibility entailed. Such variations are a common occurrence and cannot in themselves justify a reconsideration of the grading of the post.

This table lists the essential and desirable requirements needed in order to perform the job effectively. Candidates will be shortlisted based on the extent to which they meet these requirements.

Requirements		Essential / Desirable
Qualifications	PhD in Computer Science, Electrical/Electronic Engineering or a related topic	E
Experience	Experience with statistical natural language processing (NLP) techniques	E
	Experience with word embeddings / distributional semantic methods for NLP	E
	Experience with neural network methods for NLP	D
	Appropriate publication record	E
	Good general programming skills and willing to learn new programming languages	E
	Experience in programming with neural network tools e.g. PyTorch, TensorFlow	D
Knowledge, Skills and abilities	Experience with conducting research, understanding the research process and summarising findings	E
	Experience in writing academic papers in topics related to the area of research on this project.	E
	Adequate mathematical skills to understand statistical modelling as applied in language processing, geometrical methods for semantic representation, and the principles of state-of-the-art neural networks.	E
	Excellent written and oral communication skills and ability to collaborate with partners	E
	Strong ability to proficiently organise and prioritise own work and organise research within the project timetable	E
	Ability to efficiently work in a team including project industrial partners and international collaboration partners	D
	Ability to maintain accurate and up to date records	E
	Strong analytical and communication skills for working as a part of a team	E
	Ability to prepare project deliverable reports and publish peer-reviewed papers.	E
	Willing to travel to partner institutions (in EU countries) for extended working periods (not normally longer than 2 weeks).	E
	Self-motivated and hardworking	E
	Willingness to work flexibly in order to achieve project demands	E
	Excellent presentation skills	E
	Excellent technical writing skills	E

E – Essential: Requirements without which the job could not be done.

D – Desirable: Requirements that would enable the candidate to perform the job well.