Job Description – Early-Stage Researcher Pursuing a PHD on Bias in Artificial Intelligence

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Unit: Faculty of Science, Technology, Engineering and Mathematics (STEM)
Salary: up to £45,463 per year.
Location: The Open University, Milton Keynes
Time: Full Time Fixed Term (3 Years)

About the role and duties

The Knowledge Media Institute invites applications for an Early Stage Researcher to work in the area of bias in Artificial Intelligence. The researcher will work within the interdisciplinary community of the NoBias project and will pursue a PhD in Computer Science at the Open University as part of their 3-year engagement with the project.

NoBIAS – Artificial Intelligence without Bias, is a project funded by the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie Grant Agreement No. 860630.

NoBIAS aims at developing novel methods for AI-based decision making without bias by taking into account ethical and legal considerations in the design of technical solutions. The core objectives of NoBIAS are to understand legal, social and technical challenges of bias in AI-decision making, to counter them by developing fairness-aware algorithms, to automatically explain AI results, and to document the overall process for data provenance and transparency.

NoBIAS will train a cohort of 15 ESRs (Early-Stage Researchers) to address problems with bias through multi-disciplinary training and research in computer science, machine learning, artificial intelligence, law and social science. ESRs will acquire practical expertise in a variety of sectors from healthcare, telecommunication, finance, marketing, media, software, and legal consultancy to broadly foster legal compliance and innovation. Technical, interdisciplinary and soft skills will give ESRs a head start towards future leadership in industry, academia, or government.

The successful candidate will be required to:

- Carry out a PhD research project on topics related to mitigating bias in AI algorithms using data enrichment techniques.
- Engage in the NoBIAS research activities and actively collaborate within the consortium.
- Actively participate in the training programme offered by the NoBIAS ITN (Innovative Training Network)
- Engage with researchers at NoBIAS partner organizations across the EU.
- Conduct research visits and secondments according to the individual career development plan.

For further information concerning the tasks please contact Dr Miriam Fernandez (miriam.fernandez@open.ac.uk) and/or Professor Harith Alani (h.alani@open.ac.uk).

Skills and Experience

- First degree in computer science or a relevant discipline;
- Strong programming and Machine Learning skills;
- Aptitude and ability in computational thinking and methods;
- Scientific curiosity and an innovative approach to problem solving;
- Willingness to work in a cross-disciplinary training and research setting;
- Very good communication and team working skills;
- Fluent level of English.

Role Specific Details

To be eligible the applicant must satisfy the mobility requirements of Marie Skłodowska-Curie actions. According to these guidelines, at the time of recruitment, the potential candidate

- "must not have resided or carried out their main activity (work, studies, etc.) in the country of the recruiting beneficiary (United Kingdom) for more than 12 months in the 3 years immediately before the recruitment date. Compulsory national service, short stays such as holidays, and time spent as part of a procedure for obtaining refugee status under the Geneva Convention are not taken into account";
- "be in the first four years (full-time equivalent research experience) of their research careers and have not been awarded a doctoral degree".

Doing a PhD at the Open University (Knowledge Media Institute – KMi)

https://www.youtube.com/watch?v=wP9ggEF8SM8

The OU Graduate School encompasses a community of around 900 postgraduate research students (PGRS). In the Postgraduate Research Experience Survey (PRES) 2019, the OU was in the top quartile for student satisfaction. Our research students are supervised by academics who are leading experts in their disciplines and benefit from a comprehensive programme of research skills training.

Within the OU, The Knowledge Media Institute (KMi) is home to internationally recognized researchers in semantic technologies, educational multimedia, collaboration technologies, artificial intelligence, cognitive science, social data science, and human-computer interaction. KMi offers students an intellectually challenging environment with exceptional research and computer facilities. KMi offers a very friendly and diverse work and research environment that is well equipped with the newest hardware and software technology. KMi welcomes researchers from all backgrounds and ethnicities, and takes immense pride in being the home for researchers from over 20 different nationalities, brought together by their passion for research.