

RECRUITMENT PACK

This document includes the following information:

- Job Description
- Person Specification
- Additional information

Making an application:

Please complete the short on-line application form and attach the following 4 documents:

- a) A covering letter setting out how you meet the requirements of the role as set out in the person specification.
- b) A full curriculum vitae (CV) including any publications. You should specify your 4 most significant papers published within the past 5 years (or an equivalent number appropriate to being an early career researcher). Applicants from within the UK should indicate which publications have been submitted to the REF 2014 and any assessment of the rating for each piece of work; For more information about the REF visit www.ref.ac.uk
- c) For posts at salary grade 9-11, a research statement of no more than two sides of A4 providing details of your research plans for the next three years. This should include details of books, chapters or papers in progress together with planned publication dates. For journal articles please provide details of target journals and planned submission dates. If you have papers that are currently under review please detail the stage these have reached and the timescale you expect those papers to be accepted for publication. If you have papers that have been accepted for publication but not yet published please provide the date the paper was accepted for publication.
- d) For posts at salary grade 9-11, please include a document of no more than two sides of A4 setting out your three year plan for generating external funding to support your research.

Shortlisting is undertaken by a panel after the closing date on the basis of information provided and failure to upload the requested documents will result in an application being rejected.

The University of Essex is proud to be part of the Disability Confident scheme and is committed to supporting diversity and equality, representative of our inclusive community. As part of our commitment to this scheme any candidate who has a disability and meets all the essential criteria for the role will be offered an interview. We also work in partnership with national disability organisation DisabledGo who provide detailed online access guides to many of our campus buildings and facilities which you may find useful.

Please note: We are only accepting on-line applications for this post. However, if you have a disability that makes it difficult for you to provide us with information in this way, please contact the Resourcing Team (01206-874588/873521) for help.

Closing Date: 07 March 2019

Interviews are planned for: mid-March 2019, exact date to be confirmed



JOB DESCRIPTION – Job ref REQ02327

Job Title and Grade:	Research Fellow Grade 8/9*
Contract:	Full-time, fixed term until 31/3/2022. The position is fixed term due to a temporary funding source.
Hours:	A notional minimum of 36 hours per week
Salary:	Grade 8: £33,199-£39,609 per annum Grade 9: £40,793 per annum
Department/Section:	ESRC Business and Local Government Data Research Centre (BLG DRC)
Responsible to:	Prof Maria Fasli, Director of BLG DRC

*Appointment at grade 8 will be made as ASR Senior Research Officer. Appointment at grade 9 will be made as ASR Research Fellow.

Purpose of the role

The Business and Local Government Data Research Centre (BLG DRC) is funded by the Economic and Social Research Council (ESRC) to undertake fundamental and applied research in Social Sciences and advanced Data Science and Artificial Intelligence techniques with applications in Social Sciences research. The Centre works together with businesses, public sector organisations and other stakeholders to enable them to use data more effectively and support better decision-making and data-driven policy.

BLG DRC was founded in January 2014 and it has been awarded subsequent transition funding for 3 years from the 1st of April 2019. The Centre will be based at the University of Essex involving academics and researchers from a range of academic departments and schools: Computer Science and Electronic Engineering, Government, Health and Social Care, Mathematical Sciences, Economics and the Essex Business School. The Centre is led by the PI and Director, Prof Maria Fasli.

The BLG DRC occupies a unique position in the Big Data national landscape, focusing on the needs and socio-economic factors that affect the prosperity and well-being of citizens in local communities in an era of global change.

The BLG DRC aims to:

- (i) undertake socio-economic research on pertinent societal challenges with the potential to deliver discernible impact at the regional and national level;
- (ii) develop and apply novel Data Science (DS) and Artificial Intelligence (AI) techniques for supporting policy making, the delivery of public services, and improving businesses' decision making and operations;
- (iii) deliver training and knowledge exchange to support public sector organisations and businesses develop their skills base and embed novel data science techniques to support their operations.

We are seeking to appoint three Research Fellows to undertake the fundamental and applied research under the work programme of the Centre and also support the delivery of the integrated outreach and engagement programme. The three Research Fellows will be undertaking methodological research in Data Science (DS) and Artificial Intelligence (AI) techniques in the broad areas of:

- AI systems for data sharing
- Causal inference and learning from observational data
- Interpretability and visualisation
- Predictive analytics

The three Research Fellows will also provide expertise and support the other areas of work of the Centre using DS and AI techniques in supporting vulnerable people (such as in mental health and



preventative public services models), and understanding factors affecting economic growth (predictive models and complex systems).

We seek highly motivated, enthusiastic and professional candidates who have excellent knowledge of data science, artificial intelligence, machine learning, natural language processing, text analytics, or visualisation. Particular research areas of interest include but are not limited to:

- machine learning;
- reinforcement learning, neural networks, deep learning;
- data mining;
- predictive modelling and analytics;
- complex systems modelling;
- natural language processing and advanced text analytics;
- causal inference;
- social media analysis;
- visualisation;
- decision support tools and systems.

The methodological focus could be discipline or domain specific. For example, natural language processing and text analytics in the field of political science; causal inference for policy or disease evaluation.

The successful candidates will have an excellent publications record and will be able to demonstrate evidence of potential to develop an internationally leading profile in the field. Applicants are required to have a PhD in Computer Science, Artificial Intelligence, Statistics, Computer Engineering, (Social) Data Science, Computational Social Science or related discipline (essential for grade 9 appointment) or should be close to the completion of a PhD, writing up or under examination, or have significant industrial experience (for Grade 8 appointments).

At the grade 9 level candidates will already have an independent research reputation and a proven ability to publish at the highest level so that they can make a strong contribution to the next Research Excellence Framework (REF).

At the grade 9 level, the appointed Research Fellow(s) will undertake independent research and work closely with a range of industry partners as external stakeholders who will help shape and guide the research but also provide the means and a platform to test ideas and the outcomes of the work. At the grade 8 level, the Research Fellows can expect to work more collaboratively in research projects under the guidance of the Director and Co-Investigators of the Centre.

Outreach and engagement activities, including delivering training to a range of partners, will be fully embedded in the Research Fellow's work programme supported by the Project Manager and Outreach Officer.

Duties of the Post:

1. **Undertake Foundational and Applied Research:** To undertake high quality and collaborative research within the scope of the BLG DRC working collaboratively with other researchers and partners. This could include, but not be limited to:
 - Develop research objectives and workplan;
 - Use new research techniques and methods and use initiative and creativity to identify areas of research and new research methods;
 - Use creativity to analyse and interpret the research data and draw conclusions of the outcomes;
 - Author and co-author research papers;
 - Develop and undertake applied research in collaboration with businesses and other stakeholders;
 - Attendance and contributions (presentations) to annual international conferences;
 - General project management and coordination;

- Foster links and collaboration with appropriate internal and external research groups working on similar themes;
 - At grade 8 the candidate will work under the direction of the Director and the Co-Investigators of BLG DRC with support to build their research profile.
2. **Contribute to Public Engagement & Impact:** To explore all appropriate contributions to impact and engagement activities, such as community engagement and interactions with other public sector bodies, business and the third sector.
 3. **Contribute to the Integrated Outreach Programme:** Deliver training to a range of stakeholders and work collaboratively with businesses and other organisations in research and development and consultancy projects.
 4. **Develop Interdisciplinary Collaborations in BLG DRC and the University:** to take an active role in facilitating and catalysing collaboration across disciplinary boundaries within the BLG DRC and academic departments at the University of Essex.
 5. **Other Duties:** Such other duties, commensurate with the grading of the post that may be assigned by the Director of the BLG DRC.

For appointment at Grade 9 the duties of the post will include:

- Undertaking high-quality independent research and publishing research work which is eligible for submission to the Research Excellence Framework (REF).

These duties are a guide to the work that the post holder will initially be required to undertake. They may be changed from time to time to meet changing circumstances and do not form part of the contract of employment.

Terms of Appointment:

For a full description of the terms of appointment for this post please visit:

site: <https://www.essex.ac.uk/staff/employment-policies-procedures/my-contract>

February 2019

JOB DESCRIPTION – Job ref REQ02327

JOB TITLE: Research Fellow (BLG DRC)

Qualifications /Training

	Essential	Desirable
<ul style="list-style-type: none"> A PhD in Computer Science, Artificial Intelligence, Statistics, Computer Engineering, (Social) Data Science, Computational Social Science or related discipline (essential for grade 9 appointment) or should be close to the completion of a PhD, writing up or under examination, or have significant industrial experience (for Grade 8 appointments). 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Postdoctoral research experience. 	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Experience/Knowledge

	Essential	Desirable
<ul style="list-style-type: none"> Evidence of ability to produce high quality publications that could meet the criteria for submission to the Research Excellence Framework. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Experience of successfully delivering teaching/training in data science and artificial intelligence related topics or demonstrable potential for achieving this. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Experience of organising and contributing to workshops, symposia and conferences. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Experience in programming in high level languages such as Java, Python and R. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Evidence of successful participation and contribution to interdisciplinary and national/international collaborations. 	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> Experience of interacting with non-academic sectors through impact activities or public engagement (research). 	<input type="checkbox"/>	<input checked="" type="checkbox"/>

For appointment at Grade 9, in addition to the above Knowledge/Experience/ Skills and Abilities applicants are required to:

	Essential	Desirable
<ul style="list-style-type: none"> Publication of research that meets the criteria for submission to the Research Excellence Framework. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> The ability to conduct and develop independent high-quality research. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Skills/Abilities

	Essential	Desirable
<ul style="list-style-type: none"> Excellent demonstrable communication and presentation skills. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Excellent organisational and project management skills. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Excellent interpersonal skills, and ability to inspire, connect, network and collaborate. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Ability to work effectively and positively, both independently and as part of a team. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Ability to contribute to the design of research projects and proposals. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> Excellent time management and organisational skills. 	<input checked="" type="checkbox"/>	<input type="checkbox"/>

▪ Strong programming skills in languages such Java, Python and R.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
▪ Excellent IT skills.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
▪ Ability to supervise and guide postgraduate research students.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
▪ Commitment to collaborative working, particularly across disciplinary boundaries.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
▪ Possession of coherent research plan for the future.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
▪ Potential to innovate in their research field.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
▪ Potential for research to have impact outside of the academic world.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Other

	Essential	Desirable
▪ Ability to meet the requirements of UK 'right to work' legislation*.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

* The University has a responsibility under the Asylum, Immigration and Nationality Act 2006 to ensure that all employees are eligible to work in the UK. Prior to commencing employment, the successful candidate will be asked to provide documentary evidence to this effect. The University may be able to offer Tier 2 Sponsorship for this role. For further information about UK immigration requirements please follow this link <https://www.gov.uk/government/organisations/uk-visas-and-immigration>

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Additional Information

Department information

For more information on the Business and Local Government Data Research Centre (BLG DRC), please visit <http://www.blgdataresearch.org>

People Supporting Strategy

Please find a link to the People Supporting Strategy.
<http://www.essex.ac.uk/hr/policies/docs/people-oct15.pdf>

General information

Informal enquiries may be made to Professor Maria Fasli, BLG DRC Director (telephone: 01206 872237 e-mail: mfasli@essex.ac.uk). However, all applications must be made online.

Benefits

Our staff and students are members of the University for life. We believe a person's potential is not simply defined by grades or backgrounds, but by a willingness to question, to collaborate and to push at the edges of knowledge and their own potential.

As an employer we offer a range of benefits and a commitment to career development and equal opportunities in an environment that both reflects and creates a rich interaction of people, disciplines and ideas.

- Pension scheme
- Generous holiday entitlement
- Competitive salaries
- Training and development Family Friendly policies
- On campus childcare facilities, for more information visit www.wivenhoeParkDayNursery.co.uk
- Childcare vouchers
- Relocation package for qualifying staff
- Interest free season ticket loan
- Range of optional salary exchange tax benefits (pension, childcare and bicycle schemes)

No smoking policy

The University has a no smoking policy.

This document is produced by:
Resourcing Team
Human Resources
University of Essex
Wivenhoe Park
Colchester CO4 3SQ
United Kingdom
Tel: +44 (0)1206 873521/874588
Email: resourcing@essex.ac.uk

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