



## 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, which includes some standard questions, and attach the following 5 documents.**

- a) Please include a covering letter (no more than two sides of A4) setting out how you meet the requirements of the role as set out in the person specification.
- b) Include a full curriculum vitae (CV) including any publications. Applicants should provide information on the range and content of teaching and supervision experience, as well as curriculum development. For posts with a research component, 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 <http://www.ref.ac.uk/>
- c) Include an education statement of no more than two sides of A4 setting out your track record in terms of contribution to pedagogical developments and, where appropriate, the development of professional practice. You should also include a reflective statement on your approach to research-led education and how it draws on pedagogical research. Also indicate how you ensure your continuing professional development as an excellent teacher in higher education.
- d) A research statement of no more than two sides of A4 providing details of your research plans for the next three years and how these link and would strengthen the research of the Institute for Analytics and Data Science. 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.
- e) A document of no more than two sides of A4 setting out your three year plan for generating external funding to support their 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.

- Links to Guidance Notes and Frequently Asked Questions can be found on the Search Results page. These pages will open in a new window.
- We recommend that you take a copy of this recruitment pack to help with your preparation.

A commitment to sustaining an inclusive and diverse community is one of the University's core values and we are keen to address any imbalances in our workforce.

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 online 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: 09 November 2018**

**Interviews are planned for: late November/ beginning of Dec 2018**



## JOB DESCRIPTION – Job ref REQ01897

<b>Job Title and Grade:</b>	Postdoctoral Fellow (Institute for Analytics and Data Science)  Grade 8 leading to Lecturer
<b>Contract:</b>	Full-time, fixed-term for three years in the first instance. This post is fixed-term because it is for career development for the period outlined. On successful completion of the post and probation period, the Research Fellow will be appointed to a permanent Lecturer post in the relevant academic Department/School.
<b>Hours:</b>	A notional minimum of 36 hours per week
<b>Salary:</b>	£33,199 - £39,609 per annum
<b>Department/Section:</b>	Institute for Analytics and Data Science/ /Relevant academic Department/School
<b>Responsible to:</b>	Director of IADS for period of Fellowship and Head of Department/School for substantive Lecturer role.

### PURPOSE OF THE ROLE

The Institute for Analytics and Data Science (IADS) seeks to appoint a full-time Postdoctoral Fellow to start as soon as possible to support the Institute's work in analytics, data science and Big Data.

The Institute was launched in 2014 and moved into a new building in 2016. IADS is the pan-University Institute which brings together over 100 academics and researchers working in analytics, data science and Big Data from across the University. The Institute is located in the University's Science and Research Park, the Knowledge Gateway, which is an integral part of the University of Essex Colchester Campus. In the last few years, the University has been awarded over £22 million for novel and multi-disciplinary projects and infrastructure in this area from Research Councils, InnovateUK, industry and other organisations. In 2016, the University was awarded the first UNESCO Chair in Analytics and Data Science, held by Professor Fasli. As a result of the award of the UNESCO Chair, the University is also working with a range of national and international collaborators in the areas of data science and big data, in developing and transitioning countries.

We wish to add to the Institute's capability to undertake world class research and development work as well as open up and develop new research activities in this area that will become recognized as outstanding and internationally leading. We seek highly motivated, enthusiastic and professional candidates who have excellent knowledge of data science, natural language processing, text analytics or machine learning. Particular research areas of interest include but are not limited to:

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

We expect the methodological focus to be discipline or domain relevant. 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 (Social) Data Science, Computer Science, Artificial Intelligence, Statistics, Computer Engineering or Computational Social Science related discipline or should be close to the completion of a PhD (writing up or under examination).

This post is fixed term as a Postdoctoral Fellow at salary grade 8 for three years in the first instance. It is fixed-term for a period of career development in order for the successful candidate to be in a position to be appointed to a permanent Lectureship in the relevant substantive academic Department or School at the end of the Fellowship.

During the period of the Fellowship the post holder will undertake research, teaching (to build skills and experience) and administrative duties. This is to provide a good foundation in higher education practice for the Fellow to be able to take a permanent Lectureship that covers the full range of academic duties at a higher level.

The post holder will be placed on a probationary period of three years at the start of the Fellowship and this will include clear objectives relating to research, teaching and leadership/citizenship. This will then enable the post holder to apply for permanency through the University's annual review process. If the Fellow has fulfilled all of the objectives in the probationary agreement and is successful in being granted permanency, they will then be appointed to a permanent Lectureship at salary grade 9.

## **DUTIES OF THE POST**

- **Undertake Foundational and Applied Research:** To undertake high quality independent and collaborative research within the Institute for Analytics and Data Science. This could include, but not be limited to:
  - Develop research objectives and proposals;
  - 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.
- **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.
- **Develop Interdisciplinary Collaborations within IADS:** to take an active role in facilitating and catalysing collaboration across disciplinary boundaries within the Institute for Analytics and Data Science. The Fellow will be working with the Director of IADS and using their initiative in developing a distinctive and inspiring collaboration across academic departments and research centres.
- **Support the Research Culture of the Institute for Analytics and Data Science:** To actively participate in the Institute's workshops and seminars.
- **Apply for Grants:** To identify appropriate sources of external funding, write and contribute to bids for research and/or enterprise related work working together with the Director of IADS and other researchers.



- **Supervise Students:** To work with the Director of IADS and other researchers in identifying projects for suitably qualified applicants across big data and analytics, recruiting candidates, and being part of the supervisory team for them.
- **Support IADS Administratively:** To contribute fully to the Institute for Analytics and Data Science and institution by playing a role in working groups, committees and other activities.
- **Teaching:** To undertake teaching as appropriate to the level of post, to enable the candidate to meet the requirements of probation for a Lecturer level post at Grade 9, and to provide a good foundation in higher education practice for the Fellow's ongoing career. This will include teaching standalone modules/units at UG and PGT level as well as supervising students at UG and PGT levels.
- **Other Duties:** Such other duties, commensurate with the grading of the post that may be assigned by the Director of the Institute for Analytics and Data Science or their nominee.

Upon successful completion of the Fellowship the post holder will be appointed to a Lecturer level appointment and will continue to undertake the full range of research, teaching and administrative duties associated with an academic appointment at a higher level.

Any other duties as may be assigned from time to time by the Director of IADS.

***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:  
<http://www.essex.ac.uk/hr/current-staff/terms.aspx#>

**September 2018**



## PERSON SPECIFICATION

<b>JOB TITLE: Postdoctoral Fellow (Institute for Analytics and Data Science)</b>
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<b>QUALIFICATIONS / PROFESSIONAL RECOGNITION</b>	<b>Essential</b>	<b>Desirable</b>
<ul style="list-style-type: none"> <li>PhD in (Social) Data Science, Computer Science, Artificial Intelligence, Statistics, Computer Engineering or Computational Social Science related disciplines</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>Postdoctoral research experience</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<b>EXPERIENCE/KNOWLEDGE</b>	<b>Essential</b>	<b>Desirable</b>
<ul style="list-style-type: none"> <li>Publication of research that meets the criteria for submission to the Research Excellence Framework</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>Evidence of a research agenda, engagement in high-quality research activity and a developing research profile.</li> </ul>	<input checked="" type="checkbox"/>	
<ul style="list-style-type: none"> <li>Evidence of successful participation and contribution to interdisciplinary and national/international collaborations</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> <li>Experience of contributing to the preparation of successful bids for external funding</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> <li>Experience of interacting with non-academic sectors through impact activities or public engagement (research)</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> <li>Experience of running and contributing to workshops, symposia and conferences</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<ul style="list-style-type: none"> <li>Experience of successfully delivering teaching in computer science and artificial intelligence related topics or demonstrable potential for achieving this</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>Experience of successful supervision of UG/PGT/PhD students to completion</li> </ul>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<b>SKILLS/ABILITIES</b>	<b>Essential</b>	<b>Desirable</b>
<ul style="list-style-type: none"> <li>Excellent demonstrable communication and presentation skills</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>Excellent organisational and project management skills</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>Excellent interpersonal skills, and ability to inspire, connect, network and collaborate</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>Ability to work effectively and positively, both independently and as part of a team</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>Ability to teach, engage with and motivate students at both undergraduate and postgraduate level</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>Ability to supervise effectively students at both undergraduate and postgraduate level</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>Excellent time management and organisational skills</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>Excellent IT skills</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>Commitment to student support and guidance</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>Commitment to collaborative working, particularly across disciplinary boundaries</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>Possession of coherent research plan for the future</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>Potential to innovate in their research field</li> </ul>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



■ Potential for research to attract grant funding	<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"/>
■ Strong programming skills and experience in data science programming languages such as Python and R	<input checked="" type="checkbox"/>	<input type="checkbox"/>
■ Strong programming skills and experience in high level programming languages such Java, C, Perl and Python	<input type="checkbox"/>	<input checked="" type="checkbox"/>
■ Ability to identify new opportunities for collaborations that contribute towards the objectives of the Institute for Analytics and Data Science	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<b>PROFESSIONAL VALUES</b>	<b>Essential</b>	<b>Desirable</b>
■ A commitment to helping develop dynamic communities of research and education at the University	X	
■ A strong and well-articulated commitment to the University's values and mission to deliver excellence in both education and research (integrated academic practice)	X	
■ A commitment to respect individual learners and diverse learning communities and to promote participation in higher education and equality of opportunity for all learners via student-centred practice	X	
■ A commitment to collaborative working, particularly across disciplinary boundaries	X	
■ An acknowledgement of the wider context in which higher education operate	X	
■ A willingness to participate in extra-curricular departmental activities (e.g. recruitment, welcome events, employability events etc.)	X	

<b>ELIGIBILITY</b>	<b>Essential</b>	<b>Desirable</b>
■ 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>

**September 2018**



## **ADDITIONAL INFORMATION**

### **Department information**

For more information on the Institute for Analytics and Data Science (IADS), please visit <https://www.essex.ac.uk/iads/>

### **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, IADS Director (telephone: 01206 872237 e-mail: [mfasli@essex.ac.uk](mailto: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](http://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:**

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**September 2018**