

RECRUITMENT PACK

This document includes the following information:

- Job Description
- Person Specification
- Additional information

Making an application:

When completing the on-line application form you will be asked to answer questions to help you demonstrate how you meet the requirements of the post. Your answers will be used at the shortlisting and interview stages of the recruitment process. We therefore recommend that you take a copy of this recruitment pack to help with your preparation.

NOTE: You don't have to answer the questions in one attempt, but can save your incomplete application and return to it at another time. You may want to draft your answers using Microsoft Word and then copy your text into the application form. Please be aware that formatting (e.g. underline, bold, bulleting) will be lost in this process. If you are using an Apple product you will need to use an alternative web browser to Safari such as Google Chrome.

- 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 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: 30 November 2017

Interviews are planned for: 14 December 2017

Produced by:
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JOB DESCRIPTION – Job ref REQ01011

Job Title and Grade:	Catalyst Project Statistician / Data Analyst Grade 7 or 8 (see Duties of Post and Person Specification for more information)
Contract:	Fixed-term, full-time until 30 June 2019 (due to a temporary funding source)
Hours:	A notional minimum of 36 hours per week
Salary:	Grade 7 - £29,799 - £32,548 per annum, Grade 8 - £32,548 - £38,832 per annum
Department/Section:	Mathematical Sciences
Responsible to:	Senior Project Manager, Catalyst Project, Strategic Planning and Change
Reports on a day to day basis to:	Reader, Mathematical Sciences
Purpose of job:	The Catalyst Project Statistician / Data Analyst will be a member of the Catalyst Fund project team and play a critical role in the successful delivery of various high quality data resources from local government to the external user community. The post will primarily be based at County Council offices, playing a key role in liaising between Council staff, the Catalyst project team and other University staff as required to deliver Council priority initiatives.

Context and purpose of the role:

The Catalyst project at the University of Essex is funded by the Higher Education Funding Council for England (HEFCE). The Catalyst project provides a unique opportunity to bring together the University's world leading expertise in data sharing and data with Essex and Suffolk County Council's strength in policy innovation to address two policy priorities that are of local and national importance:

- Preventing and managing increasing pressures on public services
- Building community resilience to encourage communities to help deliver solutions to the challenges faced by the county's public services

This collaboration with both Councils will add value to their ongoing activity, helping them to integrate and manage data, to derive intelligence that will inform the design and implementation of service provision. The University input will be focused on the application of smart analytics in addressing the effective targeting and early intervention necessary to deliver efficient public services and better outcomes for vulnerable people.

Duties of the Post:

You will join an active research group within the Department of Mathematical Sciences at the University of Essex.

The main duties of the post will include:

1. Providing statistical support, in collaboration with senior statisticians and social scientists, on predictive modelling, risk estimation and identification of risk factors in a series of applications, based at the University and County Council offices.

Current projects include: modelling School readiness of young adults, predicting the probability of youth re-offending, early identification of children at NEET (Not in Education, Employment or Training) and research on adult exploitation and modern slavery.

2. Pre-processing and merging together data from varied sources, generating reports of preliminary data analysis, assisting in final analyses of data, ensuring analysis, reporting and archiving is in accordance with the department's standard operating procedures.
3. Assimilating, interpreting and disseminating data and information from different sources, and to communicate information appropriately to different types of stakeholders.
4. Establishing positive and effective working relationships and partnerships with academic staff and internal and external stakeholders to deliver against a complex portfolio of activities.
5. Presenting information and collaborating with local government partners, alongside other members of the Catalyst project team.
6. Any other duties as may be assigned from time to time by the academic lead or their nominee.

In addition, Grade 8 would be encouraged to:

7. Develop novel methodological approaches and publish your findings in scientific journals.
8. Develop your own research ideas and present in scientific conferences.

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.

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#>

Due to the nature of the role, the appointment will be subject to a staff vetting process including a Disclosure Scotland check. See 'General Information' section below for more information.

October 2017

**PERSON SPECIFICATION****JOB TITLE: Catalyst project Statistician / Data Analyst****Qualifications /Training**

	Grade 8		Grade 7	
	Essential	Desirable	Essential	Desirable
▪ PhD in Statistics, Data Science, Econometrics, Computer Science or equivalent or relevant working experience	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
▪ MSc in Statistics, Data Science, Econometrics, Computer Science or equivalent	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
▪ Degree or equivalent experience in a subject containing a substantial coverage of statistical theory, methods and practice	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Experience/Knowledge

	Grade 8		Grade 7	
	Essential	Desirable	Essential	Desirable
▪ Good subject knowledge of a broad range of Statistics including regression methods, GLMs, classification and clustering methods	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
▪ Good knowledge of working in R and RStudio	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
▪ Experience in programming in R, working with Shiny applications and R markdown	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
▪ Good knowledge of machine learning techniques including Random Forests and Neural Networks methods	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
▪ Experience of working with data in Excel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
▪ Ability to write scientific reports and papers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
▪ Experience of working with databases and querying (SQL, 3ySQL etc.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
▪ Experience of implementing or an understanding of how to ensure data privacy and confidentiality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
▪ Understanding of the research needs of external researchers and the user community	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
▪ Experience in analysis of qualitative data via tools such as text analytics and natural language processing	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
▪ Experience of, or an interest in big data, data science and data analytics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
▪ Ability to manage and analyse large and/or complex data sets	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
▪ Experience of managing or using data from local government	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Skills/Abilities**

	Grade 8		Grade 7	
	Essential	Desirable	Essential	Desirable
▪ Excellent interpersonal written and verbal communication skills	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
▪ Self-motivated with the ability to motivate others	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
▪ High personal integrity, with the ability to maintain the confidentiality of persona data	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
▪ Ability to manage a diverse workload with competing priorities and produce high quality work within deadlines	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
▪ Ability to explain complex statistical concepts in a wider audience	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
▪ IT skills and familiarity with Windows-based software	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Other

	Grade 8		Grade 7	
	Essential	Desirable	Essential	Desirable
▪ Ability to meet the requirements of UK 'right to work' legislation*	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
▪ A commitment to providing high quality research resources to the user community	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
▪ Can fulfil the staff vetting procedure for Government contracts (see general information for more details)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
▪ Willingness to travel for work-related purposes	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<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>

October 2017

Additional Information

Catalyst Project, Strategic Planning and Change and Mathematical Sciences

You can find more information about the department at the following links:

<https://www.essex.ac.uk/research/showcase/catalyst-project>
www.essex.ac.uk/spcs

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 Mina Manning, Catalyst Senior Project Manager (telephone: 01206 872057 e-mail: cfproj@essex.ac.uk). However, all applications must be made online.

Staff Vetting Procedures for Government Contracts:

The University of Essex has Government contracts, some of which require it to access Government systems, information or data. We have a duty to protect these assets and this obligation extends to our employees.

Due to the nature of the work, applicants who are offered employment in this role will be subject to a vetting procedure before the appointment is confirmed to enable the University to verify the following for the successful candidate:

- Identity
- Employment history (for a minimum of the past 3 years)
- Nationality and immigration status
- Criminal Record (unspent convictions only)

Criminal Record Disclosure Checks:

We encourage all applicants to provide details of warnings, reprimands, cautions or unspent criminal convictions at an early stage in the application process. Should you wish to declare such information, please email the Resourcing Team in confidence, (resourcing@essex.ac.uk) attaching brief details, or alternatively post details to the Resourcing Manager, Human Resources, University of Essex, Wivenhoe Park, Colchester CO4 3SQ. This information is seen only by those directly involved in the recruitment process.

Should you be appointed to this post you will be asked to make an application for a Basic criminal record Disclosure. This only asks about unspent convictions. More information about the process can be at <http://www.disclosurescotland.co.uk/>.

Having a criminal record will not necessarily bar you from working with us – this will depend on the nature of the position and the circumstances and background to your offence. A copy of the University of Essex policy on the recruitment of ex-offenders is available on the University website:

<https://www1.essex.ac.uk/hr/managers/recruitment/ex-offenders.aspx>

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 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:

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