



## RECRUITMENT PACK

This document includes the following information:

- Job Description
- Person Specification
- Additional information

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Making an application:

**Please complete the short on-line application form, which includes some standard questions, and attach the following documents.** (Shortlisting is undertaken by a panel after the closing date on the basis of information provided.)

- a. A covering letter - explaining why you are interested in this post, and giving examples to demonstrate how you meet the requirements of the job as outlined in the Person Specification.
  - b. A curriculum vitae - giving full details of your qualifications and experience to date.
- 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 874588/873521/873461) for help.

Closing Date: 30 July 2018

Interviews are planned for: end July 2018



## JOB DESCRIPTION – Job ref REQ01478

<b>Job Title:</b>	Machine Learning Data Scientist (KTP Associate)
<b>Contract:</b>	Full-time. Fixed term for 36 months. The position is fixed term due to being part of a Government funded innovation programme, however there may be potential to continue in employment with the company partner following the completion of the KTP.
<b>Hours:</b>	37.5 hrs / week (standard working week for host company)
<b>Salary:</b>	£30,500 - £33,500 per annum
<b>Department/School/Section:</b>	School of Computer Science and Electronic Engineering
<b>Responsible to:</b>	Professor Anthony Vickers Head of School of Computer Science and Electronic Engineering
<b>Responsible to on a day to day basis:</b>	Dr Javier Andreu, Academic Supervisor, University of Essex and Chris Royce, Company Supervisor, Cognitran Ltd
<b>Location:</b>	This post will be based at: Cognitran Ltd Cognitran House The Street Hatfield Peverel Chelmsford, Essex CM3 2EA

### Purpose of the Job:

The University of Essex in partnership with Cognitran Ltd offers an exciting opportunity to a recent graduate to utilise machine learning to analyse vehicle data and provide automotive OEMs with tools to predict failures and facilitate faster repairs, leading to cost savings and improved customer satisfaction.

### Duties of the Post:

- Establish an awareness of Cognitran's working environment and gain an understanding of the problems which are to be addressed through the utilisation of machine learning and associated technologies.
- Deep dive data alongside the project team.
- Develop the necessary tools to format and transform the data log into a machine readable dataset, then utilise Machine Learning skills to begin to build the machine learning models.
- Conduct continual iterative testing and refinement of these models.
- Working with the project team, design and build software which will enhance the current Cognitran suite of products.
- At all stages, ensure that skills brought to and developed by the project are transferred to Cognitran's existing skills base by conducting training exercises.

***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.***

June 2018

## PERSON SPECIFICATION

<b>JOB TITLE:</b> Machine Learning Data Scientist (KTP Associate)	<b>POST REF:</b> REQ01478
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### Qualifications /Training

	Essential	Desirable
▪ BSc or equivalent first degree in Computer Science, AI or a related discipline.	x	
▪ MSc in Statistics, Data Science, Computer Science, Mathematics or a related discipline.		x
▪ PhD in Computer Science, Data Science or a related discipline.		x

### Experience/Knowledge

	Essential	Desirable
▪ Good theoretical and applied knowledge of techniques in machine learning, e.g. collaborative filters, context-aware collaborative filters or recommender systems.	x	
▪ Experience of working with structured and unstructured data.	x	
▪ Demonstrable proficiency in general purpose programming languages such as Python, Java or C#.	x	
▪ Knowledge of approximate inference frameworks (fuzzy logic, statistical inference etc.).		x
▪ Experience in the implementation of neural networks and/or matrix factorization approaches.		x

### Skills/Abilities

	Essential	Desirable
▪ Pragmatic approach to problem solving.	x	
▪ Effective communication skills to be able to work collaboratively in a small team.	x	
▪ Ability to work to deadlines.	x	
▪ Good command of written and spoken English.	x	
▪ Ability to work independently and as part of a team.	x	
▪ Proactive and committed to the project.	x	

### Other

	Essential	Desirable
▪ An understanding of, and commitment to, equality and diversity.	x	
▪ Can meet the requirements of UK 'right to work' legislation.*	x	

\*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>

## Working at the University of Essex

### **The University of Essex is proud to be:**

A leading academic institution with an international reputation  
for the quality of its research and teaching and  
an international community that is committed to equality and diversity.

### **Knowledge Transfer Partnerships (KTP)**

A Knowledge Transfer Partnership (KTP) is a three-way project between a company, a university and a graduate (known as an Associate), which enables the transfer of knowledge, technology and skills to which the company currently has no access. Supported by the university, KTP Associates manage strategic projects within the company.

A KTP can help graduates to enhance their career prospects by providing them with an opportunity to manage a challenging project, which allows them to use their degree, and is central to an organisation's strategic development and long term growth.

Whilst the Associate leads the KTP project, they are supported by experienced staff from the company and university. They are also assigned a KTP Adviser, who supports them in maintaining good working relationships within the partnership and in planning their professional development in broad terms. For more information visit <http://ktp.innovateuk.org>.

### **Cognitran Ltd**

Cognitran specialises in complete, end-to-end e-business solutions in the area of multi-lingual content management. We help companies gain control over complex business activities and provide innovative ways to deliver information to end users via the Internet.

Our expertise is proven to create state of the art solutions for data management. Our systems offer customers cost efficiencies by re-using data across multiple information types and programs. In addition Cognitran provides linguistic tools that further reduce translation costs.

Cognitran's solutions are built using non-proprietary and modular XML technology and use best in class software and techniques. Existing work has met industry-wide acclaim through the use of pioneering technology, particularly in multilingual systems.

For more information, visit <http://www.cognitran.com>.

### **School of Computer Science and Electronic Engineering, University of Essex**

The School of Computer Science and Electronic Engineering comprises 1,200 students from more than 75 countries, supported by 170 academic, research and support staff. The school is conducting world-leading research in areas such as evolutionary computation, brain-computer interfacing, intelligent inhabited environments and financial forecasting, and boasts the largest robotics research group of its kind in the UK.

For more information, visit <https://www1.essex.ac.uk/csee/about/default.aspx>.

### **General Information**

Informal enquiries may be made to the project Academic Supervisor, Dr Javier Andreu (email: [javier.andreu@essex.ac.uk](mailto:javier.andreu@essex.ac.uk)) or Robert Walker, KTP Manager (tel: 01206 874076 email: [r.walker@essex.ac.uk](mailto:r.walker@essex.ac.uk)). However, applications must be made online.

KTP is funded by a UK Government grant and this appointment carries no expectation of extension beyond the end of the fixed-term contract.

In principle, previous KTP Associates are not eligible to apply. There are some circumstances where a previous Associate can apply for a new KTP. Please check with your previous KTP Adviser for information.

Please note that the role holder will be based at Cognitran Ltd, located in Hatfield Peverel, Essex, but may be expected to travel to the University of Essex Colchester Campus from time to time.

### **People Supporting Strategy**

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

### **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

June 2018