THE UNIVERSITY OF MANCHESTER

PARTICULARS OF APPOINTMENT

FACULTY OF SCIENCE & ENGINEERING

SCHOOL OF COMPUTER SCIENCE

DIVISION OF COMPUTER SCIENCE - MACHINE LEARNING AND OPTIMISATION

DATA SCIENTIST IN TEXT MINING AND MACHINE LEARNING (KTP ASSOCIATE)

VACANCY REF: S&E-13101

Salary:	£32,236 to £39,609 per annum according to experience
Hours:	Full Time
Duration:	24 Months Fixed-Term
Location:	Madgex Ltd (Brighton)

Enquiries about the vacancy, shortlisting and interviews:
Contact: Dr XiaoJun Zeng
Email: x.zeng@manchester.ac.uk

BACKGROUND

School of Computer Science

The University of Manchester is the largest single-site university in the UK. Twenty-five Nobel Prize winners have worked or studied here. We rank 29th in the world and 6th in the UK by QS World University Rankings and 38th in the world and 6th in the UK by Academic Ranking of World Universities (ARWU). Computer Science at Manchester is one of the largest and most diverse schools in the UK. In the national Research Excellence Framework (REF2014), 94% of the research within the School of Computer Science was described as either of world-leading quality or internationally excellent in terms of originality, significance and rigour; and Manchester was assessed as having the best environment in the UK for computer science and informatics research. Since 2009 the School has ranked in the top 10 in Europe by ARWU. The expertise, achievements and services of its staff are well recognised internationally, with Royal Society Fellows and many prestigious prize and award winners. The academic team (Dr Xiao-Jun Zeng, Professor Goran Nenadic, and Professor John Keane) supporting the project are experts in Machine Learning, Text Mining, Data Engineering and Software Systems within the Machine Learning and Optimisation Research Group, Text Mining Centre, and Software Systems Group, which are a centre of research excellence in the areas of Machine Learning and Artificial Intelligence.
http://www.cs.manchester.ac.uk/

Madgex Ltd

As a market leader in career technology, Madgex develop software which helps brands grow their recruitment businesses. Madgex technology is built on a foundation of user research and latest web technologies, and provides innovative, intuitive platforms that get results for job-seeking users and brings in revenue. Madgex software is used by many of the world's most successful media brands and provides the full range of tools needed to run a profitable online recruitment business. Fully flexible and highly configurable, Madgex technology enables the perfect representation of their clients' brand and a tailored approach to their markets and activities.

Working at Madgex, you will join a community. We are a friendly bunch with passion, ambition and we thrive on team work, learning & development and our regular social gatherings. As an equally important member of our team you will be rewarded with:
Free Food Fridays including salad, cake and our infamous Deli Day
Team socials – we have had everything from BBQs to our annual birthday bash
We' are committed to your personal career growth and we will provide you with learning and development resources
A dedicated Buddy in your first week alongside a full induction schedule, giving you the chance to meet the whole Madgex family and we'll even eat cake to celebrate you joining.
https://www.madgex.com/uk/

Overall Purpose of the Job

In a highly dynamic and fast-paced environment, the Data Scientist will be responsible for the method and algorithm development based on CV and other types of data analysis by utilizing ontology, text mining and machine learning techniques.

Knowledge Transfer Partnerships (KTP) is Europe's leading programme helping businesses to improve their competiveness and productivity through the better use of knowledge, technology and skills that reside within the UK knowledge base. Throughout the KTP you will;

- Receive a competitive salary
- Gain excellent experience of managing a high-profile project
- Receive formal management training
- Have access to a £4000 professional development and training budget
- Receive mentoring and support from academic staff and industry professionals

Further information on KTP, including case studies, can be found at;
http://www.manchester.ac.uk/collaborate/business-engagement/knowledge-exchange/transfer-partnerships/

Key Responsibilities, Accountabilities or Duties

- Manage the project independently, including project planning, running monthly project meetings and liaising with the academic team

- Acquire background knowledge for the project and establish contact with key industry stakeholders to understand the market needs, analyse the requirements, and identify commercial opportunities

- Develop and apply knowledge and experience of ontology, text mining and machine learning techniques to design/select appropriate analytics models and develop/implement these algorithms based on the available data set and requirements

- Identify and carry out case studies, develop simulation scenarios for the market studies

- Documentation and present the results/findings both internally and externally through reports, charts, tables, slide presentations, and publications using ontology, text mining, and machine learning methods as are appropriate to the objectives

- Liaise and collaborate with relevant Madgex development team and business units to facilitate the product development and commercialisation of the project outcomes

- Deal with problems which may affect the achievement of research objectives and deadlines

PERSON SPECIFICATION

Essential

- PhD degree in Natural Language Processing, Text Mining, Machine Learning, AI, Computer Science, or a related engineering/science degree

- Experience in Ontology, Natural Language Processing/Text Mining, Machine Learning

- Experience of algorithm and software development, documentation and deployment

- High proficiency in programming with Python

- Excellent analytical skills

- Excellent communication and interpersonal skills

- Excellent time management and organisational skills

- Ability to work independently and as part of a team

- Ability to liaise confidently and effectively with a range of individuals

- Flexible approach to dealing with research problems as they arise

- Willingness to learn and develop

- Ability to present in both written and oral publications

- Able to prioritise workload and manage time, able to work to tight deadlines

- Strong journal publication record

Desirable

- Knowledge of and experience in rule-based text mining, using relevant environments (e.g. GATE, NLTK)

- Knowledge of and experience in data-driven text mining, using a variety of machine learning approaches (e.g. SVMs, CRFs, ANNs) and environments

- Experience in machine learning methods applied to free-text data