

## THE POST

**College/Service:** [College of Engineering, Mathematics and Physical Sciences](#)

**Post:** **Senior Lecturer in Data Science (Education and Research)**

**Reference No:** **P68499**

**Grade:** **G**

**Reporting To:** **Head of Computer Science**, Professor Ronaldo Menezes

The College of Engineering, Mathematics and Physical Sciences is continuing with a strategy of sustained investment in both academic staff and infrastructure to provide a catalyst for significant growth in both research activity and student experience. In recognition of their pivotal importance to both, the College is looking to attract exceptional candidates to join its dynamic faculty.

### **Job Description**

#### ***Main duties and accountabilities***

The College is committed to providing world-class vocational education for new and experienced Data Science professionals through its employer-designed Data Science and related MSc degree programmes. A strategy of sustained investment in academic staff and infrastructure provides a catalyst for significant improvement in both the range of programmes and the quality of the student experience. In recognition of their pivotal importance to both, the College is looking to attract exceptional candidates with expertise in data Science to join its dynamic faculty.

This post is associated with the MSc-level degree apprenticeship in data science and is an “education & research” post with the normal roles and responsibilities of that position. The successful applicant will be expected to develop a substantial research profile in the area of data science and to contribute to teaching and academic management within the department, with a particular focus on the degree apprenticeship.

The College is offering degree apprenticeships as part of its strategy of working closely with industry to develop and deliver professional programmes. The successful applicant will contribute primarily to the management and delivery of the MSc Data Science degree apprenticeship programme, which will commence in 2019/20.

This post is specifically required to support the management and delivery of the MSc Data Science (Professional) degree apprenticeship programme. It is delivered through short periods of residential study on campus in Exeter and in London, as well as an element of workplace learning. Teaching on this programme has strong overlaps with other programmes offered by the department and the successful applicant will also be involved with other programs related to Data Science (BSc and MSc).

You will have responsibility for teaching Data Science topics, mentoring apprentices, and managing and monitoring the delivery of modules including research projects and work-based learning, with associated administration, pedagogical leadership and quality management and enhancement. You will work with colleagues and third parties to ensure the efficient and effective delivery of the programme components, and contribute to the development and implementation of innovative teaching practices across the College.

The College is particularly interested in candidates who can demonstrable experience as Data Science practitioners within industrial or commercial settings, who have a keen desire to teach and are comfortable in engaging with students and their employers. Candidates should be willing and able to teach from a broad selection of core modules including Data Science, Machine Learning and Statistical Modelling. Candidates should also be able to teach on at least one of our specialisms which include Machine Vision; High Performance Computing and Data Architecture; Social Networks and Text Analysis and Information Security.

We recommend the candidate to specify in the cover letter which specialisms (from the list above) s/he/ feels more comfortable contributing to.

Candidates should strive to understand the Degree Apprenticeship delivery model prior to applying and to contribute to its development and evolution. Beyond teaching, as a Senior Lecturer, candidates should be prepared to lead research in an area of Data Science.

### **Scholarship**

1. Conduct individual or collaborative scholarly projects.
2. Identify sources of funding and contribute to the process of securing funds for scholarly activities.
3. Be aware and informed of developments in higher education relevant to the development of teaching and learning strategies within the College and in particular, Data Science.

### **Specific duties and accountabilities for this position:**

#### Teaching

To deliver undergraduate and post-graduate courses, particularly around the Degree Apprenticeship programmes in Data Science (MSc), to appropriate academic standards such that:

1. Students are challenged but also tutored and supported with individual care
2. Teaching and learning techniques are innovative and inspiring, making good use of campus-based learning, distance learning, blended learning and e-learning techniques as appropriate
3. Students are supervised appropriately
4. Assessment criteria are appropriate and fairly applied, with results fed back to students appropriately
5. Module content is continuously reviewed to identify areas for improvement
6. Level 7 MSc apprentices acquire practical workplace skills and knowledge in Data Science topics through a process of active learning and reflective practice.
7. Video and other content for incorporation into e-learning resources is prepared as required.
8. Online workshops and tutorials are delivered as required.
9. The apprentices' acquisition of practical workplace skills and knowledge is assessed.

#### Academic mentoring

1. Act as academic mentor to apprentices, being in contact regularly, guiding them through the apprenticeship process and helping to resolve issues, referring them to sources of further help if required.
2. Maintain a positive working relationship with employers and employer mentors.

#### Data Science management

1. Instructional design
  - a. Participate in the design and development of the education component of the programme.
  - b. Guide and assist colleagues in producing detailed activity plans for taught modules, such that apprentices will learn useful workplace skills through active learning.
  - c. Maintain guidelines for colleagues in designing content according to best pedagogical principles.
2. Technology management:
  - a. Become expert in the technologies used to support the Data Science Apprenticeship and related degrees
  - b. Introduce additional technologies to make teaching more effective and/or efficient and enhance the student experience.
3. E-learning production:

Work with the Programme Lead and e-learning experts to develop e-learning resources as required.

Represent the University in a positive light, acting as a conduit for employer feedback and other employer-related intelligence.

## **Research**

1. To conduct independent research and act as principal investigator and project leader, and in so doing:  
  
Enhance the College's international reputation through research publications of appropriate quantity and quality, and contribute to worldwide debate at national and international conferences, and  
  
Win research earnings through carefully prepared and successful grant applications as well as identifying potential income-generating programmes and collaborative partnerships.
2. To supervise research projects, managing any dedicated research staff and postgraduate research students, and provide the mentorship to enable staff and students to develop their skills and academic careers.
3. To help promote a collegiate working atmosphere and stimulating environment that will attract further research staff of the highest quality as well as good postgraduate research students.
4. To contribute to the further and ongoing development of Data Science research at Exeter

## **General**

To contribute to the overall general and academic management in the College by undertaking activities that may be required such as:

1. Developing overall academic content and structure of modules with colleagues
2. Developing ideas for generating income and promoting both the College in general and Computer Science in particular
3. Supporting admissions processes and procedures
4. Supporting examinations processes and procedures
5. Contributing to the work of College committees
6. Contributing to accreditation and quality control processes
7. Contributing to strategic planning

This job description summarises the main duties and accountabilities of the post and is not comprehensive: the post-holder may be required to undertake other duties of similar level and responsibility.

## **Person Specification**

You will have a strong track record as a business IT professional or a business IT educator or, preferably, both. You will be able to demonstrate the following qualities and characteristics:

<b>Competency</b>	<b>Essential</b>	<b>Desirable</b>
Attainments/Qualifications	A PhD or equivalent qualification/experience in the subject or a closely related discipline.  A degree-level qualification in Computer/Data Science with very strong research and industrial work experience.  Track record of data science research with associated outputs including academic publications, patents, products, etc.	PhD in Data Science field.
Skills and Understanding	In-depth experience and understanding of one or more professional specialisms within Data Science.  Ability to teach.  Ability to manage a team.	Experience working in industry or commerce.
Prior Experience	A strong background in Data Science.  Teaching.	Experience of teaching and curriculum development in HE.

	Leadership.	Experience in distance education.  Leadership in HE.
Behavioral Characteristics	<p>Excellent written, oral and interpersonal communication skills.</p> <p>Excellent collaboration and teamwork skills.</p> <p>Works independently and acts on own initiative.</p> <p>Enthusiastic about education, particularly using innovative methods.</p> <p>Adapts teaching techniques depending on circumstance.</p> <p>Inspirational; engages, enthuses and motivates students and colleagues.</p> <p>Communicates clearly; adapts own communication approach for different types of individual.</p> <p>Participates in and develops external networks, especially in business.</p> <p>Willing and able to learn new skills.</p>	

**Informal Enquiries**

Applicants are encouraged to contact the Dean of the College, Prof. Ken Evans ( +44(0)1392723645, [K.E.Evans@exeter.ac.uk](mailto:K.E.Evans@exeter.ac.uk)) to discuss the post further. Informal enquiries can be made to Prof. Ronaldo Menezes ([r.menezes@exeter.ac.uk](mailto:r.menezes@exeter.ac.uk); +44 (0)1392 726991).

**Terms & Conditions**

Our Terms and Conditions of Employment can be viewed [here](#).

**Further Information**

Please see our [website](#) for further information on working at the University of Exeter.