Northumbria University (London)

MSc Big Data and Data Science Technology

Study details

Course type: Master's degree
Degree: MSc Big Data and Data Science Technology
Study mode: Full time
Duration: 12 Month

Cost of study

Cost : 19 750 GBP
Reg. fee : N/A GBP
Scolarship :
Insurance : N/A GBP

Intake/s

Jan/May/Sep

Requirements

Academic requirements

- Minimum 2:2 honours degree, or equivalent, from a recognised university in any subject
- Bachelor Degree (4 Years)
- GPA of around 2.75/4.0 for courses requiring a UK 2:2 equivalent

- CGPA 3.2/4 or 4.0/5 for courses requiring a 2:1 equivalent

English language requirements

- IELTS 6.5 (or above) with no single element below 5.5 or equivalent.

If you don’t meet the academic requirements

Applicants with non-standard prior learning and or relevant work experience and training are encouraged to apply. A CV (curriculum vitae) made up of prior work experience and training would need to be submitted for consideration by our faculty alongside the standard application.

Candidates coming through the non-standard route, such as through relevant work experience or old qualifications, will be invited to discuss their application.

All applications will be considered on an individual basis.

Accommodation

Please note that your tuition fees do not include the cost of course books that you may choose to purchase, stationery, printing and photocopying, accommodation, living expenses, travel or any other extracurricular activities. As a Northumbria University London Campus student, you will have full access to our online digital library with over 400,000 e-books and 50,000 electronic journals.

Your tuition fees cover far more than your time in class with our expert academics, it covers the cost of providing you with excellent services and student experience.

- Contact time in class – typically in lectures, seminars and tutorials
- Access to facilities, including computers, on-campus Wi-Fi, printers, vending machines, quiet study spaces
- The support of our Careers & Employment Service who help you to become more employable, secure placements and run workshops
- Academic support – our ACE Team run multiple sessions on academic writing, presenting, exam techniques throughout the semester, as well as 1-2-1 appointments and drop-in sessions
- Student support services such as our Ask4Help Service. Find out more about the services available to you on our Student Support page
- Access to online resources, including 24/ 7 Library with over 400,000 e-books and 50,000 electronic journals.

Additional information

Overview

The demand for data scientists is ever rising. A report by Harvard Business Review suggests that the shortage of data scientists has become a serious constraint in certain sectors, leading the authors to claim Data Scientist as the Sexiest Job of the 21st Century.

Data Scientists carry out applied research to create innovative data-driven solutions to business problems. Usually, they work with large, complex, varied, and unstructured data sets that are not suitable for using traditional data analysis approaches and techniques. This programme is specifically designed to enable you to develop this in-depth technical knowledge that will allow you to discover new data-driven solutions.

Key facts

- Develop in-demand skills to work in a range of roles in the IT industry
- Enhance your knowledge in the application of programming language, big data and machine learning on cloud
- The Advanced Practice includes an Internship or Group Consultancy Project, enhancing your employability with all-important work experience

- Designed to meet the accreditation criteria of BCS, the Chartered Institute for IT for the purposes of meeting the academic requirement for registration as a Chartered IT Professional
- Upon completion of your programme, you will be eligible for the QA Professional Pathways programmes which will enable you to further develop your skills with one of the UK's largest providers of IT and project management training

What will I study?

To accelerate your learning, you will be exposed to theories, methods, tools, and technologies (including SPSS and Tableau software packages; MySQL, Python, R language or similar) relating to the design, development and testing of data science applications for business intelligence.

You will train and deploy distributed machine learning models using a cloud-based platform such as Google Cloud, Microsoft Azure or AWS or similar and machine learning technology using TensorFlow. You will also be exposed to the fundamental concepts, principles, technologies, and techniques of big data analytics.

You will be able to apply this knowledge and skill in your context, and critically analyse the implementation and recommend future improvements. Recognising that information governance and cyber security are critical to the adoption and use of computing systems in businesses and organisations, you will also cover fundamental concepts, principles, techniques and tools of information governance and cyber security.

How will I be taught and assessed?

- Teaching is delivered through lectures, workshops and tutorials totalling between **10-13 hours per week**
- You're expected to engage in independent study, around **30-32 hours per week**
- **Assessment** includes coursework, critical report writing, practical exercises, individual, group and research project work.
- Taught by **experienced lecturers and academics** who use their industry experience to demonstrate how theories translate into real-life situations.
- **Technology-enhanced** learning is embedded throughout the course to guide your preparation for seminars and independent research
- Benefit from **weekly academic support sessions** designed to build your ability and confidence as an academic learner
- You will be assigned a **guidance tutor** at induction who you will meet with regularly during your studies

Careers and further study

This Master's programme has been designed to ensure that graduates will be equipped to work in a variety of careers in the IT industry or to progress to academic or research-orientated careers. Indeed, the qualification is designed to accelerate your skills and competence in a range of job roles, including roles in leadership and management such as:

- Machine Learning Engineer
- Data Engineer
- Business Analyst
- Data and Analytics Manager

- Business Intelligence Analyst
- AI Cloud Architect
- Data Architect

Furthermore, this programme will prepare you to meet the educational requirements of the BCS, The Chartered Institute for IT for the purposes of meeting the further learning academic requirement for registration as a Chartered IT Professional.