



UNIVERSITY OF
BIRMINGHAM

LECTURER / SENIOR LECTURER IN Data Science and AI

School of Computer Science

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Computer Science is an exciting and dynamic discipline with exceptional opportunities for research and education. At the University of Birmingham we have built a community who conduct both fundamental and applied research in five areas: Artificial Intelligence and Data Science, Cyber Security, Theoretical Computer Science, Human-Centred Computing and Computational Life Sciences. We put equal weight on rigour and application and our staff's interests span this full spectrum. We are also enthusiastic about interdisciplinary research and we seek to work with colleagues from a broad range of fields in medicine, the humanities and social sciences.

We are seeking new colleagues with research interests at the cutting edge of contemporary thinking in Computer Science, who are eager to join a vibrant and supportive group of like-minded researchers and educators. We firmly believe that diversity is a strength and we are committed to finding new colleagues who will contribute to our academic environment. We value inclusivity and transparency in the way that we run our school and new members will have every opportunity to shape the way that we address future challenges. If you share our passion for computer science then we very much hope that you will consider applying for the advertised posts.

Andrew Howes,
Head of School of Computer Science



ABOUT THE SCHOOL OF COMPUTER SCIENCE

The University of Birmingham School of Computer Science provides a home to a world-leading research and teaching community for staff, students and collaborators.



The School of Computer Science provides a vibrant community for academic staff, research fellows and PhD students.

Our research drives our teaching, and we offer a range of exciting opportunities for both staff and students. We are proud of our interdisciplinary collaborations, such as those with Law and Medicine.

The School is housed in a contemporary building on the Edgbaston campus, and is home to dedicated computing laboratories, and research laboratories for Security, Medical Imaging and Intelligent Robotics.

Our faculty is home to leading academics and we hope you will want to join us.



UNIVERSITY OF
BIRMINGHAM

SCHOOL OF COMPUTER SCIENCE

The School of Computer Science is home to a large AI and Data Science group with research interests in machine learning, computer vision, medical imaging, robotics and evolutionary computing. We are a member of the Alan Turing Institute and count 4 ATI Fellows and 1 EPSRC Senior Fellow amongst our staff. Our research has impact in areas as diverse as medical imaging, human rights and astrophysics, and we have industrial links with Huawei, Samsung, Fetch AI and others.

We offer collaborative teaching and research spaces, social spaces and multi-purpose meeting spaces for our academic community. We believe in great relationships

between our staff and student body, and operate regular social activities, in order to engage and build strong collaborations. Our teaching is consistently ranked highly in all reputable league tables and guides and we have the highest possible rating from the Quality Assurance Agency for Higher Education. We are currently ranked 8th for the quality of our research intensity in the REF (2014), and the University has been awarded a Gold rating in the 2016/17 Teaching Excellence Framework (TEF).

11th in Computer
Science

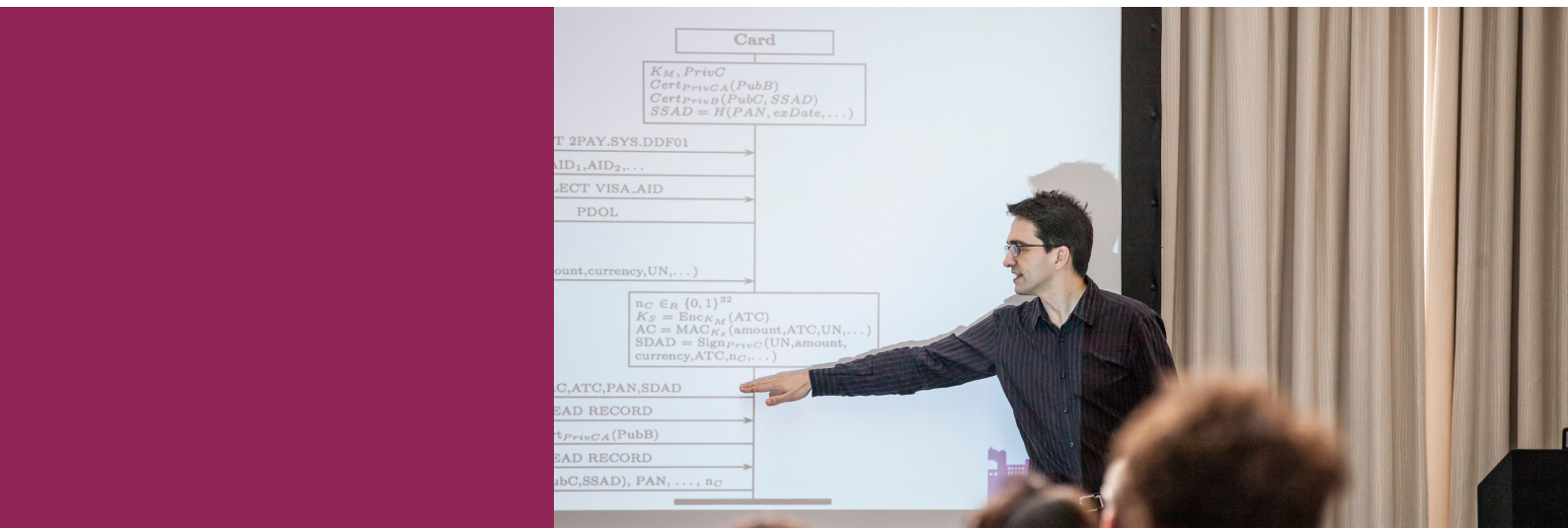
**The Times and Sunday Times
Good University Guide 2019**

JOB SUMMARY

The School of Computer Science at the University of Birmingham seeks to recruit outstanding computer scientists for the role of Lecturer / Senior Lecturer in Data Science and AI.

We provide an inclusive environment and are committed to a recruitment process free from discrimination. We believe that supporting a variety of career trajectories is vital for world class computer science to flourish.

The postholder will create and disseminate knowledge through initiating and conducting original research, through publication and by seeking external funding, and through developing and delivering undergraduate and postgraduate programmes in data science, AI, and computer science. They may also seek non-academic impact, recognising the importance of Computer Science to society. They will also contribute to the School's operation through management, leadership and enterprise activities, and other School events.



MAIN RESPONSIBILITIES:

RESEARCH

Postholders at all levels will be expected to plan and carry out the highest quality research, using appropriate methodology and techniques. This will include contributing to all of the following:

- Pursue research including developing research ideas and winning support, including research funding
- Present findings in high quality journals and conference proceedings
- Supervise and examine PhD students, both within the institution and externally
- Manage research activities and/or supervise other research staff,
- Develop novel methodologies and techniques
- Manage projects, and supervise research staff
- Provide expert advice to staff and students within the discipline
- Develop and make substantial contributions to knowledge transfer, and enterprise (including business engagement, public engagement) and similar activity that is of benefit to the university

MAIN RESPONSIBILITIES:

RESEARCH

(SENIOR LECTURER)

In addition, appointments at Senior Lecturer level will need to demonstrate a sustained contribution to research, teaching and administration over a number of years:

- Make a major contribution to the management of research activities
- Lead successful funding bids which develop and sustain research support for the specialist area (in disciplines where this is possible)
- Publish leading research that results in a sustained, highly respected reputation of international quality in the subject area
- Provide expert advice internally and externally,
- Provide leadership of research that contributes to the progression of the discipline (in disciplines where this is possible) ,
- Referee and peer review articles for peer reviewed academic journals and grant applications by research councils and/or other major funding bodies
- Lead sustained high value impact activity in knowledge transfer and enterprise (including business engagement, public engagement) that is of manifest benefit to the College and University, and: a) makes a significant contribution to policy development at a national and international level; and/or b) involves development of industrial links and comparable networks and initiatives.

MAIN RESPONSIBILITIES: TEACHING AND LEARNING

Postholders at all levels will be expected to contribute to some or all of the following:

- Teach and examine courses at a range of levels
- Plan and review own teaching approaches and act as a mentor to encourage others to do the same
- Develop module proposals and make substantial contributions to the design of teaching programmes more widely in the School, as appropriate
- Use appropriate approaches to learning and teaching in their field
- Disseminate appropriate practices through suitable media
- Develop and advise others on learning and teaching tasks and methods
- Undertake and develop the full range of responsibilities in relation to supervision, marking and examining,
- Develop and make substantial contributions to knowledge transfer, enterprise, business engagement, public engagement activities or similar on own specialism that enhances the student experience or employability and is of manifest benefit to the College and University
- Demonstrate a high level of student satisfaction
- Devise and supervise projects, student dissertations and practical work

MAIN RESPONSIBILITIES: TEACHING AND LEARNING (SENIOR LECTURER)

In addition, appointments at Senior Lecturer level will be expected to contribute at a senior level on a sustained basis in learning and teaching. Where appropriate for the discipline, this may include some but not all of the responsibilities listed below:

- Lead the development of new and appropriate approaches to learning and teaching. This may be underpinned by research and evaluation of teaching methods and systems
- Act as adviser for teaching and learning methods through excellent practice and mentoring other colleagues
- Lead the design and/or co-ordination of programmes or equivalent activities across the School.
- Contribute to the development of teaching and learning policy, methods and standards, more widely than the School Contribute to debate nationally about policy, methods and practices through publications, conference activity and roles that advance quality in the discipline
- Lead the development and management of assessment strategies within the School/Department
- Lead substantial and sustained high value impact activity in knowledge transfer and enterprise (including business engagement, public engagement) that enhances the student experience and/or employability and is of manifest benefit to learning and teaching in the College and the University. This may include the development of industrial links and comparable networks and initiatives.

MAIN RESPONSIBILITIES: MANAGEMENT AND ADMINISTRATION

Postholders at all levels will be expected to contribute to some or all of the following:

- Contribute to the administration/management of research and/or teaching across the Department/School
- Advise on personal development of staff and students
- Make a sustained contribution to widening participation, schools outreach and/or public understanding of the discipline
- Contribute to administrative activities within the University (e.g. appeals panels, working groups)
- Develop and manage staff and resources in support of major research and/or teaching activities.

MAIN RESPONSIBILITIES: MANAGEMENT AND ADMINISTRATION (SENIOR LECTURER)

In addition, appointments at Senior Lecturer level will be expected to chair and/or lead activities in the School and representation on University committees or working groups. Where appropriate to the discipline, this is likely to include some but not all of the responsibilities listed below.

- Make an important contribution to the development and running of the School, for example, leading activity on teaching assessment and/or on research
- Develop and manage staff and resources in support of major research and/or teaching activities
- Make important contributions to the development of the School's research strategy and/or learning and teaching strategy
- Lead/project manage a team to devise and implement a new and/or revised process (e.g. new programme or a recruitment drive)
- Contribute significantly to the development and delivery of knowledge transfer, enterprise, business engagement and public engagement activities with a sustained high value impact of manifest benefit to the College and the University.

PERSON SPECIFICATION

- Normally, a higher degree (usually PhD) in computer science, engineering, mathematics or a closely related field, or equivalent qualifications or experience
- Significant research experience and scholarship
- Evidence of the ability to attract PhD students, to secure external grants from research councils, academic charities or industries, or to consult and work with industry is desirable
- A demonstrated ability to balance long-term fundamental research with short-term applied projects would be beneficial

RESEARCH

- A growing international research record in computer science (or related inter-disciplinary areas), evident from publications in leading international conferences and journals, is required
- Experience and achievement reflected in a growing international reputation
- Experience and demonstrated success in planning, undertaking and project managing research to deliver high quality results,
- Extensive experience of applying and/or developing and devising successful models, techniques and methods
- Experience and achievement in knowledge transfer, enterprise and/or similar activities

TEACHING AND LEARNING

- Ability to design, deliver, assess and revise teaching programmes
- Experience in developing appropriate approaches to learning and teaching, and advising colleagues
- Experience and success in knowledge transfer enterprise and similar activity that enhances the student experience or employability

MANAGEMENT AND ADMINISTRATION

- Ability to contribute to School/Departmental management processes
- Ability to assess and organise resources effectively
- Understanding of and ability to contribute to broader management / administration processes

PERSON SPECIFICATION (SENIOR LECTURER)

Demonstrated competence in Research; Learning and Teaching; and Management and Administration; and excellence in at least two of these areas.

- Normally, a higher degree (usually PhD) in computer science, mathematics or a closely related field, or equivalent qualifications or experience
- Extensive research/teaching experience and scholarship within data science and AI
- Proven ability to devise, advise on and manage learning/ research
- Evidence of the ability to attract PhD students, to secure external grants from research councils, academic charities or industries, or to consult and work with industry is desirable
- A demonstrated ability to balance long-term fundamental research with short-term applied projects would be beneficial

RESEARCH

High level peer esteem as evidenced by:

- Excellent reputation in the UK and often internationally, reflected in sustained high quality output, level of innovation, impact on subject and recognition
- An excellent and sustained record of peer reviewed research publications
- Successful and sustained supervision of doctoral students to completion
- Substantial and sustained research income generation, e.g. through research grants, contracts, research consultancy or other external funding
- Sustained high value impact knowledge transfer and enterprise that is of manifest benefit to the College and University

TEACHING AND LEARNING

- High national reputation for the development of teaching and learning excellence within the discipline
- Successful and sustained use of a range of appropriate teaching methods, and assessment strategies that promote high quality learning, including learning that is flexible, distinctive and current and stimulates learners' natural curiosity
- Significant and sustained contribution to one or more of the following: strategic development of new programmes; approaches to learning; the development of learning resources
- High quality and sustained contributions to fostering excellence in teaching activities more widely, i.e. in the Department/School or College and/or externally
- Track record of substantial and sustained high value impact on the enhancement of the student experience, and/or employability
- Mentoring/expert advice which develops the skills of colleagues in teaching and in fostering learning

MANAGEMENT AND ADMINISTRATION

- Successful and sustained performance in significant administrative / managerial role(s)
- Significant and sustained high quality innovative contributions to the management/administration of the Department/School/College or University
- Successful and sustained contribution to the corporate life of the School/College/University, displaying willingness to contribute actively to committees, collaborative teaching and administrative tasks

OUR COMMITMENT TO EQUALITY

We are a global community. We believe our diversity is a source of strength that underpins the exchange of ideas, innovation and debate at the heart of our academic mission.

The University was founded in 1900 on an anti-discrimination ethos accepting men and women on an equal basis. Today, as a community of over 145 nationalities in one of the UK's most vibrant cities, we remain committed to promoting equality, diversity and fairness irrespective of age, disability, gender, pregnancy or marital status, race, religion or belief, sexual orientation or gender identity.

We celebrate our diversity and provide a welcoming and inclusive environment for all members of the University community. We offer dedicated disability services, a wide range of support groups and a multi-faith chaplaincy. The University is a member of the Advance HE Race Equality and Athena SWAN charters. It holds a Bronze Athena SWAN Charter award and is actively seeking to improve the number of women in STEMM subjects.

The University is a Stonewall Global Diversity Champion and we ensure that all of our employment policies and benefits are, where relevant, inclusive of same sex couples and use gender neutral language.



ABOUT THE UNIVERSITY OF BIRMINGHAM

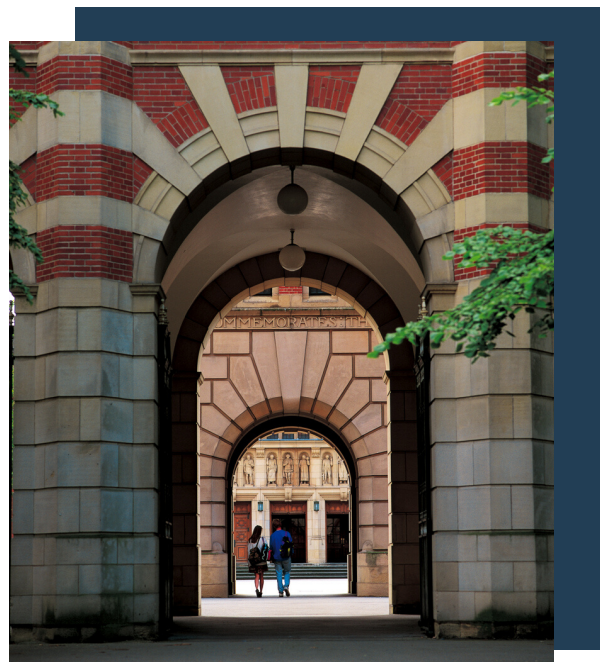
Birmingham has been challenging and developing great minds for more than a century. Characterised by a tradition of innovation, research at the University has broken new ground, pushed forward the boundaries of knowledge and made an impact on people's lives.

We have a long and proud history of firsts at the University of Birmingham; we were the first, and are now one of the largest, civic universities in the UK. We were also the first UK University to:

- Be built on a campus model
- Incorporate a Medical School; and
- Welcome women to take medical degrees

More recently we were the first university to establish a fully comprehensive secondary school and the first Russell Group and Global Top 100 university to open a new campus in Dubai.

Our heritage as the original 'redbrick' is combined with one of the most compelling and ambitious agendas in higher education. Quite simply, at Birmingham we make things happen.



Birmingham is a leading member of the Russell Group and a founder member of the Universitas 21 global network of research universities.

Home to world-class researchers, we count 11 Nobel Laureates among our staff and alumni, including three prizes awarded in 2016 for Physics and Chemistry. We have been integral to some of the greatest scientific discoveries of recent times, such as the Higgs boson and gravitational waves, and are pioneering new approaches to tackling some of the biggest global challenges facing society; from antibiotic resistance and maternal health to conflict resolution and access to education.

With more than 7,500 staff, 34,000 students and 300,000 alumni across the globe, we think, recruit and compete worldwide.



Ranked in the top 100 universities globally and the top 20 in all domestic league tables, the quality of what we do at Birmingham is widely recognised. We were awarded Gold in the 2017 Teaching Excellence Framework and in the most recent Research Excellence Framework (REF2014), more than 80 per cent of our research was rated as internationally excellent or world-leading.

In 2014 The Times and The Sunday Times named us University of the Year in recognition of our bold, ambitious strategy and innovative approach to the challenges facing the sector. In 2016 they named us University of the Year for Graduate Employment – recognising our sector-leading employability programmes and outstanding rates of graduate employment. Thinking differently is in our DNA.


Many of our initiatives, such as our 'Birmingham Fellows' programme, which has so far seen over 70 of the world's best early-career academics join us, our widening participation activities, and our unconditional offers strategy for exceptional students, have been much emulated within the sector.



LIVING IN THE CITY OF BIRMINGHAM

Vibrant and diverse, Birmingham is a European centre for retail, commerce and culture. Appropriately, its civic motto is 'Forward', and it is the driving ambition and attitude of the city which makes Birmingham a great place to work, live and study.





The city of Birmingham has undergone a major transformation in the last decade and regularly features as top place to visit – in fact, it was the only place in the UK listed in the Rough Guide’s Top 10 places in the world to visit in 2015. In a recent Sunday Times/ Zoopla report ‘Best Places to live in Britain’ three areas of Birmingham all made the top 50 best places to live in Britain, with the suburb of Moseley being voted the overall winner.

A city of historical interest and contemporary vision, Birmingham has a rich and diverse community that creates a vibrant, multicultural and exciting place to live and work. Birmingham is home to the internationally renowned Birmingham Royal Ballet and one of the world’s greatest concert venues: Symphony Hall.

The City Museum and Art Gallery houses the world’s finest collection of Pre-Raphaelite paintings, alongside a major collection of Old Masters, Modern and Contemporary pictures, while the iconic Bullring is one of the largest dedicated shopping facilities in Europe.

Sports and recreation are also well served; the city offers international Test cricket, high-level football, international championship golf and tennis, and top-class rugby. As a multicultural city, Birmingham is also renowned for the breadth of its cuisine and has more Michelin-starred restaurants than any other English city outside London.

Birmingham is within an hour’s drive of Stratford-upon-Avon and the Cotswolds. From Birmingham Airport, more than 50 different airlines operate scheduled services to 100 destinations worldwide.

