

Job Description: Associate Professor (Research and Education) in Sports Data Science and AI

Post title and post number	Associate Professor (Research and Education) in Sports Data Science
College/Budget Centre	Life and Environmental Sciences
School/Department	Sport, Exercise and Rehabilitation Sciences
Full time/Part time	Full Time
Duration of the Post	Permanent
Salary	Grade 9
Additional information	
Terms and Conditions	Academic Teaching Staff
Closing Date	TBC
Grade	9
Summary of Role	
<p>The School of Sport, Exercise and Rehabilitation Sciences at the University of Birmingham, UK, is a world-leading department that combines innovative and translational research with evidence-based professional practice to promote lifelong engagement in physical activity, optimising health, wellbeing, and performance for everyone. Consistently ranked in the top 10 of the QS World University Rankings by Subject and top 5 in the latest UK's Research Excellence Framework, our research addresses societal challenges through multidisciplinary perspectives and enriches our degree programmes.</p> <p>We are seeking to appoint a full-time Associate Professor in Sports Data Science who will contribute at a senior level to research, education, and administration. The role holder will be expected to demonstrate excellent academic citizenship, through constructive, collaborative, and supportive working relationships with colleagues and students, and to provide leadership within the School and across interdisciplinary initiatives.</p> <p>As part of our efforts to enhance student professional development and employability, we welcome applications from individuals who can evidence involvement in machine learning, data mining, and artificial intelligence, and their application to sports data science and related areas. We particularly welcome applicants with an excellent research profile, including a strong track record of publishing in leading international conferences and peer-reviewed journals in machine learning, artificial intelligence, data mining, and large-scale data analytics, with applications in sports data science considered essential. Applicants should also demonstrate a strong track record of securing external research funding and be able to clearly articulate how their research and scholarly activity informs and shapes their teaching.</p> <p>You will join a thriving multidisciplinary academic community within the School, working closely with colleagues in Computer Science, and with access to excellent research and teaching facilities. We work closely with sporting organisations, technology partners, and clinical centres of excellence, and have a strong focus on extending our research and impact to the communities we serve.</p>	

About you

You will have a clear and coherent research vision in sports data science, using state-of-the-art techniques in machine learning, artificial intelligence, data mining, and related fields to address sport-related problems involving complex, large-scale, or high-dimensional data.

You will have an established international reputation and a sustained track record of internationally excellent or world-leading research outputs in sport data analytics or related fields. Applicants with strong research profiles in machine learning, artificial intelligence, data mining, or large-scale data analytics within the wider fields of sport science are also encouraged, provided they can clearly demonstrate how their research profile aligns with sports data science. You will have a strong track record of securing competitive external or industry-linked research funding and delivering impactful outcomes through interdisciplinary collaboration within the School, Computer Science, the wider University, and beyond.

In education, you will be an inspiring and effective educator, able to communicate complex analytical and computational concepts clearly and accessibly, with particular emphasis on teaching students from sport science and other non-STEM backgrounds. You will provide leadership in curriculum design and programme development, contribute to high-quality teaching and assessment, and support the development of industry-relevant analytical and programming skills. You will also lead or contribute to student projects in collaboration with placement partners, focusing on real-world problems. You will demonstrate the ability to adopt and teach emerging approaches to coding and data analysis, including AI-assisted methods and modern data science workflows.

In management and administration, you will lead, support, and manage activities within the School, with potential involvement at College or University level. This may include leadership in research strategy, programme development, knowledge transfer, enterprise, business engagement, and public engagement activities, contributing to sustained high-value impact.

In our diverse community where we believe in integration, acceptance and support for everyone with different abilities, sexual orientation, ethnicity, race, faith, and gender, you will actively respect and uphold these values.

The School of Sport, Exercise and Rehabilitation Sciences, as a proud awardee of Athena SWAN Silver status, is committed to promoting equality, diversity, and inclusivity, and therefore welcomes applicants from diverse backgrounds to join our global community.

The University of Birmingham holds Advance HE Race Equality Charter and Athena Swan Charter bronze awards and is a Stonewall Global Diversity Champion. Further information about working at the University of Birmingham, including information about employee benefits and childcare provision is at <https://www.birmingham.ac.uk/staff/index.aspx>

Main Duties / Responsibilities

Education

You will contribute across the range of teaching and learning activities:

- making a significant contribution to the pedagogical knowledge base of the subject that advances teaching through the enhancement of practice, the development of teaching resources and/or through practice-based research;
- leading on the management and the development of approaches to teaching and learning, including designing innovative approaches to digital resources/environments and supporting colleagues to use them that are innovative to the subject area or institution;

- leading on curriculum design at module and programme level to ensure it is contemporary, inclusive, engaging and academically challenging;
- actively engaging students in curriculum design and sharing evidence of “what works”;
- making an impactful, high-quality contribution to debates about education policy, methods and practices through internal and external publications, subject societies and conference activity;
- developing an external profile evidenced through engaging in external quality assurance activities related to teaching, e.g. external examining and engaging with/supporting education in other institutions;
- playing an important and sustained role in the recruitment and admission of students;
- co-supervising doctoral students to completion;
- leading the development of teaching, learning and assessment policies and strategies;
- acting as an education mentor to colleagues in the School/Department/College or more widely;
- leading the development of new and appropriate approaches to learning and teaching. This may be underpinned by research and evaluation of teaching methods and systems
- leading sustained high value impact 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
- undertaking own teaching, which will include teaching and examining courses at a range of levels, planning and reviewing own teaching approaches, developing programme proposals, supervision, marking and examining. You will ensure that your teaching practice is informed by discipline-based research, through participating in the research culture of the School.
- Using digital resources and environments, and, where relevant, AI tools effectively to support learning and assessment.

Research

Planning and carrying out research, including (as appropriate):

- planning and publishing high quality research, including winning financial support;
- project managing research activities, and/or supervising other research staff;
- presenting findings in publications and conference proceedings;
- effectively supervising and mentoring PhD students or early Career Researchers;
- providing expert advice to staff and students within the discipline;
- participating in research-related enabling activities such as adding value to a cross-disciplinary network;
- applying knowledge in a way which develops new intellectual understanding;

- developing and making substantial contributions to knowledge transfer, and enterprise (including business engagement, public engagement) and similar activity that is of benefit to the College and the University, including ensuring that the impact of your activities is realised fully and the impact is documented.

Management/Administration

Contributing to Departmental/School administration, including:

- contributing to the administration/management of research and/or teaching across the Department/School;
- leading and managing a team to devise and implement a new and/or revised process (e.g. new programme or a recruitment drive);
- advising on personal development of colleagues and students;
- making a major contribution to some administrative activities within the University (e.g. appeals panels, working groups);
- managing enterprise, business development, and public engagement activities;
- developing and making substantial contributions to knowledge transfer, enterprise, business engagement, public engagement, widening participation, schools outreach.
- actively manages equality, diversity and inclusion through monitoring and evaluation and actively challenging unacceptable behaviour.

Citizenship

Contributing to an inclusive working environment:

- demonstrating a willingness to be involved in a variety of activities supporting University life (e.g., participation in graduation, Departmental/School committees);
- demonstrating support for colleagues, such as sharing resources, providing advice;
- willingness to volunteer for one-off duties (such as supporting School, Institute, and Departmental projects);
- positively engaging in School strategic initiatives;
- proactive support and involvement in activities specifically contributing to a positive and inclusive community spirit across the School/College/University.

Person Specification

- Doctoral qualification in Sport Science (with a thesis applying machine learning or AI techniques to sports data science or related areas), or in Computer Science, or another relevant STEM discipline.
- Extensive research/teaching experience and scholarship within subject specialism
- Proven ability to devise, advise on and manage learning/research
- Skills in managing, motivating and mentoring others successfully at all levels

Teaching

- Extensive experience in teaching analytical and computational skills to students from diverse backgrounds, including sport science and other non-STEM disciplines, especially in the adoption and teaching of AI-assisted development (e.g. prompt-driven approaches and agent-based coding).
- Demonstrated experience conducting sport data analytics research in, or in collaboration with, sporting organisations or relevant industry partners, or similar experience in related domains with clear potential for application to sport data analytics.
- Ability to design, deliver, assess and revise teaching programmes
- Extensive experience and demonstrated success 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

Research

- Established international reputation in data science and analytics, including the application of machine learning or AI-based methods to complex datasets, with either (i) evidence of research outputs in sport data analytics, or (ii) strong research outputs in related fields with clear potential for application to sport data analytics.
- Experience in the development and delivery of sport and/or exercise placement and/or internship provisions.
- Extensive 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 similar activity

Management 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
- Experience of championing Equality, Diversity and Inclusion in own work area
- Ability to monitor and evaluate the extent to which equality and diversity legislation, policies, procedures are applied
- Ability to identify issues with the potential to impact on protected groups and take appropriate action