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

Post title and post number	Assistant 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 8
Terms and Conditions	Academic Teaching Staff
Closing Date	TBC
Grade	8

Information for applicants

Academic Development Programme - New Assistant Professors will undertake a 5-year development programme, at the end of which they are expected to be promoted to Associate Professor. The programme consists of a variety of development opportunities and the time to reflect and develop.

Summary of Role

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.

We are seeking to appoint a full-time Assistant Professor in Sports Data Science who will contribute 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.

As part of our efforts to enhance student professional development and employability, we welcome applications from individuals with expertise in data science, with applications in sports data analytics and related areas. We particularly welcome applicants with a strong research profile, including publications in leading conferences and 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 strong potential to secure external funding and be able to articulate how their research and scholarly activity informs and shapes their teaching.

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.

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 sports-related problems involving complex, large-scale, or high-dimensional data.

You will have a track record of publishing internationally excellent or world-leading research outputs in sports data science and related areas. Applicants with strong publication records 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 demonstrate an upward trajectory in securing, or the potential to secure, competitive external or industry-linked research funding appropriate to your career stage. Through collaboration across disciplinary areas within the School, Computer Science, the wider University, and beyond, you will contribute to impactful research outcomes.

In education, you will be an effective and engaging educator, able to communicate complex analytical and computational concepts clearly to diverse audiences, with particular emphasis on teaching students from sport science and other non-STEM backgrounds. You will contribute substantially to high-quality teaching, assessment, and programme delivery, including the development of practical, industry-relevant analytical and programming skills. You will also contribute to the design and delivery of 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 play an active role in supporting colleagues and managing areas of activity within the School, with opportunities for University-wide engagement. This may include developing and making substantial contributions to knowledge transfer, enterprise, business engagement, public engagement, widening participation, schools' outreach, or similar activities at Department/School level or further within the University.

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

Using a variety of methods in teaching and advising individuals and groups of undergraduates, postgraduates, or CPD students, including (as appropriate):

- teaching, and assessing courses at a range of levels.
- planning and reviewing your own teaching approaches and encouraging others to do the same;
- designing contemporary, inclusive, engaging and academically challenging curriculum content
- working collaboratively with colleagues to design and deliver teaching, learning and assessment.
- using digital resources/environments, and, where relevant, AI tools effectively to support learning and assessment.
- developing programme proposals and making substantial contributions to the design of teaching programmes more widely;
- where appropriate, undertaking and developing the full range of responsibilities in relation to supervision, marking and examining;
- developing and advising others on learning and teaching tasks and methods;
- developing and making substantial contributions to knowledge transfer, enterprise, business engagement, public engagement activities or similar on own specialism that enhances the student experience or employability and which benefits the College and University;
- devising and supervising projects, student dissertations and practical work.

Research

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

- developing programme proposals and making substantial contributions to the design of teaching programmes more widely;
- where appropriate, undertaking and developing the full range of responsibilities in relation to supervision, marking and examining;
- developing and advising others on learning and teaching tasks and methods;
- developing and making substantial contributions to knowledge transfer, enterprise, business engagement, public engagement activities or similar on own specialism that enhances the student experience or employability, and which benefits the College and University;
- devising and supervising projects, student dissertations and practical work.

Management/Administration

To contribute to School administration, this may include:

- developing programme proposals and making substantial contributions to the design of teaching programmes more widely;
- where appropriate, undertaking and developing the full range of responsibilities in relation to supervision, marking and examining;
- developing and advising others on learning and teaching tasks and methods;
- developing and making substantial contributions to knowledge transfer, enterprise, business engagement, public engagement activities or similar on own specialism that enhances the student experience or employability and which benefits the College and University;
- devising and supervising projects, student dissertations and practical work.

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

- Ability to design, deliver, assess and revise teaching programmes
- Ability to teach or adopt emerging coding paradigms including AI-assisted development (e.g. prompt-driven approaches and agent-based coding).
- Demonstrated ability to teach analytical and computational skills to students with diverse backgrounds, including sport science or non-STEM backgrounds.

- Experience and success in knowledge transfer, enterprise and similar activity that enhances the student experience or employability

Research

- Demonstrated expertise 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 sports data analytics, or (ii) strong research outputs in related fields with clear potential for application to sports data analytics.
- Demonstrated experience conducting sports 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 sports data analytics.
- Experience of post-graduate supervision at masters and doctoral level - ideally in projects related to sport data science.
- Experience and achievement reflected in a growing reputation
- 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