

Job Description

Position / Job Title:	Post-Doctoral Research Assistant in Digital Health and Artificial Intelligence (Fixed-Term)
Ref:	798
Location/Building:	Poole House - Talbot Campus
Faculty/Professional Service:	Faculty of Media, Science and Technology
Group/Section:	School of Computing and Engineering
Duration if Temporary:	Fix-Term 21 Months
Normal Hours per Week:	37 (Some flexibility will be required in order to ensure that key time scales and deadlines are met).
Grade:	6
Accountable to:	Prof Huseyin Dogan

Job Purpose

This Post-Doctoral Research Assistant (PDRA) will support NIHR funded research project at Bournemouth University (BU) and join the [DELTA](#) (Digital, Economics, Data Linkage and Analytics) Core of the [NIHR Maternity Disparities Consortium](#) (MDC), a major UK-wide research programme aiming to reduce inequalities in maternal and neonatal outcomes.

The post holder will primarily work as a Software Engineer by focusing on requirements analysis, design, development and evaluation of a cardiometabolic care bundle, starting in early pregnancy and transitioning to postnatal/interpregnancy pathways. They will support the optimisation of cardiometabolic care focussing on:

- early pregnancy cardiometabolic risk assessment and triage of care (e.g. obesity)
- cardiometabolic risk monitoring/management (e.g. home blood pressure monitoring)
- postnatal cardiometabolic care (e.g. type 2 diabetes (T2D) screening/prevention)
- drivers of risk (e.g. intersectional clinical, social, behaviour inequalities)

The post holder is expected to have Software Engineering skills for developing digital health solutions. They will work closely with clinicians, implementation scientists, health economists, statisticians, data scientists and partner organisations across the consortium. The role will focus on the development and evaluation of AI-supported digital approaches for cardiometabolic and maternal health risk prediction and monitoring, linkage and analysis of large-scale routine healthcare datasets, and equity-focused analytics. The post holder will contribute to methodological innovation and provide analytical expertise to support evidence generation for scalable maternity interventions.

Main Responsibilities

1. Research, Artificial Intelligence and Data Science
 - Undertake high-quality research supporting Theme 2 of the NIHR Maternity Disparities Consortium.
 - Develop and implement statistical, epidemiological, AI and data science methods to evaluate maternity care interventions using routinely collected healthcare data.

- Support data management and analysis of national maternity, hospital, primary care and mental health datasets, including secure research environments where appropriate.
 - Develop, validate and evaluate digital risk prediction and monitoring approaches for cardiometabolic and maternal health during pregnancy and the postnatal period.
2. Digital Health and Evaluation
 - Support the development, implementation and evaluation of digital tools for maternity care, including early pregnancy cardiometabolic risk stratification and digitally supported monitoring.
 - Work with clinical and technical partners to ensure digital solutions are evidence-based, equitable, acceptable and integrated within routine care pathways.
 - Support assessment of implementation fidelity, feasibility, adoption and scalability of digital interventions.
 - Work collaboratively with consortium members to ensure harmonised analytical approaches across research themes.
 3. Collaboration and Research Delivery
 - Work closely with researchers, clinicians, NHS partners, public contributors and consortium collaborators across the UK.
 - Participate in multidisciplinary project meetings and consortium activities.
 - Contribute to data management plans, statistical analysis plans, study protocols and research governance documentation.
 - Assist with preparation of ethics applications, data access requests and regulatory documentation where required.
 - Disseminate research findings through peer-reviewed publications, conference presentations, technical reports and stakeholder engagement activities.
 - Develop and maintain the DELTA project website
 - Contribute to grant applications and future research funding opportunities where appropriate.
 4. Capacity Building and Training
 - Contribute to the design and delivery of education and training activities relevant to digital health, AI, Data Science and maternity research.
 - Supervise undergraduate and postgraduate student projects, placements or dissertation research as appropriate.
 - Support capacity-building activities across the consortium.

Organisation Chart



Contacts

- **Internal:** Academic and research colleagues in the NIHR Maternity Disparities Consortium across the Bournemouth University, School of Computing and Engineering, Research Development & Support, Office of the Vice-Chancellor.
- **External:** NIHR Maternity Disparities Consortium member universities, research participants, research beneficiaries.

Information Governance Responsibilities

Data User

- i. Work will involve access to confidential health data within approved secure research environments and compliance with all relevant information governance requirements.
- ii. Comply with the associated data protection, information security, information management and information technology regulations, policies, processes and procedures.

Safeguarding and Regulated Activity

If the role involves engaging in regulated activity relevant to vulnerable groups including children and disabled adults, it is an [offence to apply for](#) and perform the role, if a person is bared from engaging in regulated activity. Further information is available in BU's [Safeguarding Policy](#) and Suitability Statement on the Recruitment and Employment of Ex-offenders.

Additional Information

The purpose of the job description is to indicate the general level of responsibility and location of the position. The duties may vary from time to time without changing their general character or level of responsibility.

BU is an equal opportunities employer which values a diverse workforce. The post holder must at all times carry out their responsibilities with due regard to the University's Dignity, Diversity and Equality Policy Statement.

Our highly skilled and creative workforce is comprised of individuals drawn from a broad cross section of the globe, and who reflect a variety of backgrounds, talents, perspectives and experiences to build our global learning community. Through fused activity, the post holder must have an understanding of and commitment to promoting a global outlook.

All employees have an obligation to be aware of the University's Sustainability Policy, Climate and Ecological Crisis Action Plan, Travel Plan and associated documents, and to ensure that they carry out their day-to-day activities in an environmentally responsible manner and inspire students to do the same.

July 2026

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Faculty / Service: Faculty of Media, Science and Technology	Date: July 2026
SELECTION CRITERIA	Essential / Desirable
Knowledge (including experience & qualifications)	
A strong Digital Health background with a good degree in Computer Science, Data Science, AI, Engineering or a similar discipline.	E
Doctorate (or thesis submitted) in Computer Science, Data Science, AI, Engineering or other discipline closely related to Human Computer Interaction, Health Informatics, and/or Digital Health.	E
Demonstrable evidence of expertise and active research in one or more of the following subject areas: Digital Health, Software Engineering, Human Computer Interaction, Health Informatics, Policy, Data Science.	E
Clear understanding of the maternity care pathways and needs of women with diverse backgrounds as well as inequality aspects.	D
Experience conducting quantitative and/or qualitative health research using healthcare data and analysing large and complex datasets.	D
Strong research profile as evidenced by high quality outputs and bidding activities.	D
Appropriate level of knowledge and skills to enable personal contribution to enterprise activities with evidence of previous collaborations with industry/external organisations or working in interdisciplinary teams in the context of Digital Health.	D
Experience of presenting research within and beyond academia.	D
Experience in collaboration with researchers from other disciplines.	D
Familiar with current developments in research and scholarship with ability to identify appropriate research options, methods and theoretical perspectives.	D
Skills	
Ability to design and implement successful research projects.	E
Excellent interpersonal and organisational skills.	E
Excellent technical skills.	E
Excellent writing skills.	E
Ability to work well both as a team member and on own initiative.	E
Ability to communicate well at all levels within the team.	E
Ability to communicate well at all levels with external organisations.	E
Attributes	
Ability to travel within the UK and overseas.	E
Ability to identify research and enterprise activities relevant to the project.	E
Highly motivated to work in the field of Digital Health.	E
Adaptable with strong team working skills.	E
Ability to prioritise and work under pressure.	E
Positive attitude towards safeguarding.	E