

Job Title: Research Associate (Mobile App Developer)

Unit/School: School of Technologies

Grade: 4 A/B

HERA: CSAD201

Core purpose of role

Expanding Horizons (EH) is a leading social care service provider for adults with mental health issues, learning disabilities and other complex needs in both residential and supported living settings. In recent years, EH has faced significant challenges in meeting the increasing demand for target-oriented personalised care that facilitates independent living and seamless integration with the community. Current administrative processes, particularly logging, analysing and reporting the client's care journey are manual and time consuming, leading to inefficiencies, delayed interventions, and reactive decision-making.

Addressing this challenge, in collaboration with EH, Cardiff Met's Centre for Industry 4.0 and Blockchain Research (CI4BR) in Cardiff School of Technologies aims to develop a patient-centric mobile application that streamlines the care management process. The research purpose of this role is to implement an AI-driven analytical platform 'THRIVE' through which EH staff can monitor and predict the client's journey.

Within the role you will be required to travel and operate between Cardiff Met and Expanding Horizons care facilities (Cwmbran) as required for the success of the research project.

Key responsibilities and contributions

- Undertake evaluation of EH's existing data management, database and governance framework with support of Academic supervisor against agreed objectives.
- Conduct extensive user (service user and managers) data collection requirement analysis.
- Design and develop the mobile app under the supervision of the Academic supervisor in collaboration with EH and using Google Firebase studio.
- Design and develop a cloud database to ingest historical data and app derived data and design and develop a dashboard for monitoring and analysis purposes under supervision of academic supervisor.
- Integrate generative algorithms (e.g. DeepSeek v1) for automatic reporting on client's care journey under supervision of academic supervisor.
- Undertake relevant training and development activities to develop capacity for taking on wider responsibilities.
- To prepare and present findings of research activity as appropriate.
- To prepare progress reports on the research from time to time as required by the Academic supervisor for internal review purposes.

- To write up the results and contribute to the drafting and submission of papers to appropriate peer reviewed journals
- Support the Academic supervisor on all matters related to the project as necessary and as appropriate and commensurate with the grade.
- Develop and deploy research techniques under supervision of the Academic supervisor.
- Use initiative and creativity in analysing and interpreting research data and draw conclusions.

Person specification

Essential qualifications / Professional memberships

1. Good undergraduate degree (2:1 or above) in computer science or related subjects.

Essential experience, knowledge and skills

2. Programming efficiency in Python.
3. Knowledge and understanding of working within an academic environment on applied research projects.
4. Knowledge of multidimensional and longitudinal datasets.
5. Knowledge of users requirement analysis.
6. Knowledge of effective academic, industry and policymaker engagement activities.
7. Proficiency in database development.
8. Ability to develop a dashboard.
9. Working experience with generative AI.
10. Evidence of ability to interpret complex procedural guidelines and explain them to non-experts.
11. Proven organisational, time management and administrative skills.
12. Proven effective presentation and communication skills (e.g., face-to-face, presentations and workshop delivery).
13. Ability to work under time pressure and across subject areas. Ability to work effectively as part of a team and with a variety of internal and external stakeholders.
14. Evidence of working in an outcome focused environment where performance against targets is essential.

Desirable

15. Ability to identify opportunities for proactive research impact development.
16. Experience of working in the Higher Education sector.
17. Experience of contributing to the development, monitoring, and evidencing of research impact for potential REF impact case studies.

Welsh skill requirements

Welsh is essential to our students and staff and is a key part of our provision and services. For every position at Cardiff Met, proficiency in Welsh language is either essential or desirable. You can find information about the levels by viewing our booklet: [Welsh language skills levels](#). If a skill is listed as essential in the table below, please ensure you demonstrate this in your online application form.

Language level and general descriptor	Listening	Reading	Speaking	Writing
A1 – Beginner Can understand and use familiar everyday expressions and very basic phrases in Welsh.	Desirable	Desirable	Desirable	Desirable
A2 - Basic user Can deal with simple, straightforward information and communicate in basic Welsh.				
B1 - Intermediate user Can communicate, to a limited level, in Welsh about things that are familiar and/or work related.				
B2 - Upper intermediate user Can express myself in Welsh on a range of topics and understand most of a conversation with a native speaker.				
C1 - Fluent user Can communicate fluently in Welsh.				
C2 - Master user Can communicate fluently on complex and specialist matters in Welsh.				

Disclosure & Barring Service requirements

This post requires an enhanced DBS check.

Supporting information

The University is a dynamic organisation and changes may be required from time to time. This job description and person specification is not intended to be exhaustive.

The University is committed to the highest ethical and professional standards of conduct. Therefore, all employees are expected to have due regard for the impact of their personal behaviour and conduct on the University, students, colleagues, business stakeholders and our community. Each employee must demonstrate adherence to our Code of Professional Conduct. In addition, all employees should have particular regard for their responsibilities under Cardiff Metropolitan University's policies and procedures.

