



UNIVERSITY OF LEEDS

CANDIDATE BRIEF

**Experimental Officer in Machine Learning Platforms,
Faculty of Engineering and Physical Sciences**



Salary: Grade 7 (£37,099 – £44,263 pro rata p.a.)

Reference: EPSPA1110

Closing date: Sunday 21 April 2024

Part time, 11.25 hours per week

Fixed term until 31 March 2027

We are open to discussing flexible working arrangements

Experimental Officer in Machine Learning Platforms, School of Physics and Astronomy.

Are you an ambitious person looking for your next challenge? Do you have an established background in machine learning? Do you want to further your career in one of the UKs leading research-intensive Universities?

You will work on the Development in Africa with Radio Astronomy (DARA) project with Prof Hoare and colleagues to establish a machine learning training platform for radio astronomy trainees in Africa. You will liaise with members of the DARA team to develop a training platform that will complement other aspects of data science training within DARA and beyond. The platform should have different levels for those with beginner, intermediate and advanced level prior knowledge. You will develop exemplar codes and data sets in both astronomy and Earth Observation. Consultations with DARA industrial partners will also be involved to showcase the synergies between the use of machine learning in astronomy and commercial opportunities in the space sector.

What does the role entail?

As an Experimental Officer, your main duties will include:

- Working with Prof. Melvin Hoare and colleagues from the DARA project to use your initiative, creativity and judgement to design, develop and test a machine learning training platform for radio astronomy trainees in Africa;
- Working with DARA colleagues to include Earth Observation applications on the training platform;
- Liaising with co-workers who are developing the computing infrastructure for a data centre at the Ghana Radio Astronomy Observatory;
- Consulting with colleagues from the DARA industrial partners;
- Management of the day-to-day progress towards project deliverables, ensuring that project objectives are met and that technical reports are completed on time to the satisfaction of the principal investigator and sponsor;
- Ensuring the platform conforms to data protection and security standards;
- Generating and pursuing independent and original ideas in the development of the training platform;



- Developing objectives and proposals, and contributing to setting the direction of the projects above and the team including preparing business models in collaboration with colleagues;
- Evaluating methods and techniques used and results obtained by other researchers and relating such evaluations to your own work;
- Preparing reports and disseminating results through other recognised forms of output;
- Working independently and as part of a larger team of researchers, both internally and externally to develop new links and collaborations and engage in knowledge transfer activities where appropriate;
- Contributing to the training of postgraduate students, including assisting with the supervision of projects in areas relevant to the project;
- Maintaining your own continuing professional development and acting as a mentor to less experienced colleagues as appropriate;
- To contribute to, and to encourage, a safe working environment.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.

What will you bring to the role?

As an Experimental Officer, you will have:

- A PhD (or will have submitted your thesis prior to taking up the role) in Astrophysics or an Environmental Science discipline;
- Substantial experience in machine learning applications in either Astrophysics or Environmental Science;
- Experience in the establishment of machine learning training platforms;
- Excellent software development skills, with proficiency in python;
- Hands-on experience with cloud platforms (e.g. Azure, AWS);
- Experience in cloud development principles and architecture patterns;
- Experience in deploying microservice architectures and cloud native workloads;
- Demonstrable ability of writing technical reports and papers to a high standard;
- Excellent communication skills, both written and verbal and the ability to communicate your work at national and international conferences;
- Good time management and planning skills, with the ability to meet tight deadlines and manage competing demands effectively without close support;



- A proven ability to work well both independently and as part of a team;
- A strong commitment to your own continuous professional development with a willingness and motivation to learn new techniques.

You may also have:

- Experience of astrophysics or environmental science research;
- Experience in the African academic or research community.

How to apply

You can apply for this role online; more guidance can be found on our [How to Apply](#) information page. Applications should be submitted by **23.59** (UK time) on the advertised [closing date](#).

Contact information

To explore the post further or for any queries you may have, please contact:

[Professor Melvin Hoare](#), Professor of Astrophysics and DARA Principal Investigator

Tel: +44 (0)113 343 3864

Email: M.G.Hoare@leeds.ac.uk

Additional information

Faculty and School Information

Further information is available on the research and teaching activities of the [Faculty of Engineering & Physical Sciences](#), and the [School of Physics and Astronomy](#).

A diverse workforce

As an international research-intensive university, we welcome students and staff from all walks of life and from across the world. We foster an inclusive environment where all can flourish and prosper, and we are proud of our strong commitment to student education. Within the Faculty of Engineering and Physical Sciences we are dedicated to diversifying our community and we welcome the unique contributions that individuals can bring, and particularly encourage applications from, but not limited to



Black, Asian and ethnically diverse people; people who identify as LGBT+; and people with disabilities. Candidates will always be selected based on merit and ability.

The Faculty of Engineering and Physical Sciences are proud to have been awarded the Athena SWAN [Silver](#) Award from the Equality Challenge Unit, the national body that promotes equality in the higher education sector. Our [equality and inclusion webpage](#) provides more information.

Working at Leeds

We are a campus-based community and regular interaction with **campus** is an expectation of all roles in line with academic and service needs and the requirements of the role. We are also open to discussing flexible working arrangements. To find out more about the benefits of working at the University and what it is like to live and work in the Leeds area visit our [Working at Leeds](#) information page.

Information for disabled candidates

Information for disabled candidates, impairments or health conditions, including requesting alternative formats, can be found on our [Accessibility](#) information page or by getting in touch with us at hr@leeds.ac.uk

Criminal record information

Rehabilitation of Offenders Act 1974

A criminal record check is not required for this position. However, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our [Criminal Records](#) information page.

