CANDIDATE BRIEF
Software Development Scientist, Faculty of Environment

Salary: Grade 7 (£36,333 – £43,155 p.a.)
Reference: ENVEE1677

Location of the post is University of Leeds (with scope for hybrid working)

We are open to discussing flexible working arrangements
**Software Development Scientist**  
**School of Earth and Environment, Faculty of Environment**

Are you an ambitious software developer looking for your next challenge? Do you have a background in research computing? Do you want to further your career in one of the UK’s leading research-intensive Universities?

The School of Earth and Environment (SEE) is seeking to appoint a Software Development Scientist within the Centre for Environmental Modelling and Computation (CEMAC). CEMAC is an established research computing centre within SEE which aims to substantially enhance the School’s research, teaching, impact and outreach capabilities, related to computer modelling, data analysis and visualisation. The successful candidate would join growing team of ~10 software developers and specialist research computing scientists already working on a broad range of scientific computing projects across the School.

In this role, you will have the opportunity to work on complex scientific codes, providing innovative computational solutions to diverse environmental problems, and contributing to the development of the research and teaching strategies of the School. You will also help CEMAC to maintain a skills base at the leading edge of research computing techniques, continually developing new and novel applications that help translate science into high impact results.

You will have a PhD in an appropriate technical, scientific, or engineering discipline, ideally with a strong software development component. You will also have a proven record of accomplishment of developing and maintaining codes to study complex, cutting edge scientific problems, ideally in the physical sciences.

**What does the role entail?**

As a Software Development Scientist, your main duties will include:

- Designing, developing and maintaining complex scientific software for environmental science applications;
- Contributing to software engineering expertise in model and data science, helping to realise the scientific ambitions of the School of Earth and Environment;
• Contributing technical computing expertise to the high-level training of researchers and students, development of funding proposals, new numerical computing initiatives, and scientific papers;
• Generating and pursuing independent and original research computing ideas appropriate to project-specific research areas;
• Developing research objectives and contributing to setting the direction of the research project and team, including preparing proposals for funding in collaboration with colleagues;
• Evaluating methods and techniques used and results obtained by other CEMAC and School researchers and to relate such evaluations appropriately to your own work;
• Working both independently and also as part of a larger team, engaging in knowledge-transfer activities where appropriate and feasible;
• Maintaining your own continuing professional development and acting as a mentor to less experienced colleagues as appropriate.

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 a Software Development Scientist, you will have:

- A PhD in an appropriate technical, scientific, or engineering discipline, ideally with a strong software development component;
- Experience in setting up and running earth simulation models;
- Excellent Python programming skills;
- Experience in working with high volume data workflows in an HPC environment;
- Excellent problem-solving skills, with the ability to take possession of and provide solutions for complex problems in a multi-disciplinary team environment;
- Ability to prioritise and complete multiple assignments; ability to organise and multitask, and meet deadlines;
- Excellent oral and written communication skills, including skills in preparing and making short presentations and documentation on computing topics;
- A proven ability to work well both individually and in a team;
- A strong commitment to your own continuous professional development.
You may also have:

- Awareness of programming with FORTRAN or C;
- Proficiency in Conda environments;
- Experience in working within a software life cycle (liaising with user needs, code design, code testing, source code repositories, version control);
- A high level of proficiency in Unix-based high-performance computing (HPC) and parallel programming (OpenMP, MPI), including knowledge of job scheduling;
- Experience in visualisation of large complex datasets;
- Practical experience of applying machine learning techniques to scientific research.

**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:

**Dr Juliane Schwendike**, CEMAC Director  
Email: j.schwendike@leeds.ac.uk

**Dr Mark Richardson**, Technical Head of CEMAC  
Email: m.g.richardson@leeds.ac.uk

**Additional information**

Please note: If you are not a British or Irish citizen, from 1 January 2021 you will require permission to work in the UK. This will normally be in the form of a visa but, if you are an EEA/Swiss citizen and resident in the UK before 31 December 2020, this may be your passport or status under the EU Settlement Scheme.

Find out more about CEMAC
Find out more about our School of Earth and Environment

Find out more about the Faculty of Environment

Find out more about our Research and associated facilities

Find out more about equality in the Faculty.

Our University
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 Environment 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 Environment has received a prestigious Athena SWAN silver award from Advance HE, the national body that promotes equality in the higher education sector. This award represents the combined efforts of all schools in the Faculty and shows the positive actions we have taken to ensure that our policies, processes and ethos all promote an equal and inclusive environment for work and study.

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.

Candidates with disabilities
Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found on our Accessibility information page or by getting in touch with us at disclosure@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.