CANDIDATE BRIEF

Immersive Simulation Programmer, Faculty of Environment

Salary: Grade 7 (£39,105 – £46,485 p.a.)

Reference: ENVTR1205

We are open to discussing flexible working arrangements.

Immersive Simulation Programmer
Institute for Transport Studies, Faculty of Environment

Do you have an interest in immersive technologies and software development for video games, supported by good programming skills? Would you like to develop the graphical aspects of the next generation software for a world-leading set of immersive, human-in-the-loop simulators, working with academics in a research-oriented and multi-disciplinary environment?

The Human Factors and Safety Group at the Institute for Transport Studies (ITS) is seeking to appoint a programmer to join a small team of software developers undertaking research in road safety and new technologies, at [Virtuocity](#). The programmer will contribute to developments in the Unity-based renderer station software, developing immersive scenarios, and creating 3D models, to help human-factors and psychology researchers achieve new goals in human-in-the-loop experiments involving road user interactions in a Virtual Reality setting.

You will have a degree in Computer Science or equivalent experience in a programming environment, programming skills using C++ or C# and experience in game engines such as Unity or Unreal Engine, and any relevant experience in computer graphics. You should also have knowledge of graphical modelling with tools like Blender.

You should be willing to work flexibly and cooperatively with other members of the development and research team and have good organisational skills, including the ability to document your work.

Excellent interpersonal and communication skills are essential, in order to liaise effectively with all internal and external users of the facility. The opportunity to present our capabilities and findings at national and international project meetings, conferences and seminars is desirable.

What does the role entail?

As a Simulator Programmer your main duties will include:
- Development of Unity-based projects for CAVE-based pedestrian simulator (HIKER).
- Development of Turner, an in-house developed Unity-based project acting as the render station of our Driving Simulator software.
- Creation and arrangement of 3D models required for an immersive experience.
- Development of scenarios for the simulators and help in post-processing the collected data for analysis.
- Maintaining portability of the software to support different simulation platforms.
- Proactively communicating with team and research group members keeping them appraised of progress.
- Instigating and responding to feedback from users of the facility and members of the ITS research groups to ensure continuous improvement.
- Presenting work in project meetings, seminars, conferences as required.

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 Simulator Programmer you will have:
- A degree in computer science or substantial experience in a computer programming.
- Experience in C++ or C#, object-oriented software design, and version control systems.
- Experience in game engines like Unity or Unreal, and/or relevant experience in computer graphics.
- Knowledge of graphical modelling with tools like Blender or Maya.
- Excellent organisation skills and attention to detail.
- Experience of training and coaching others in the use of systems and processes.
- Ability to understand the needs of the users and to determine the corresponding objectives while anticipating problems and limitations.

You may also have:
- Knowledge of Qt.

- Experience in Linux Operating Systems.

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 Natasha Merat
Tel: +44 (0) 113 343 6614
Email: N.Merat@its.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.

Please note that this post may be suitable for sponsorship under the Skilled Worker visa route but first-time applicants might need to qualify for salary concessions. For more information please visit: www.gov.uk/skilled-worker-visa

For research and academic posts, we will consider eligibility under the Global Talent visa. For more information please visit: https://www.gov.uk/global-talent

Find out more about the Institute for Transport Studies.

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.