Candidate Information

Position:	Research Assistant (Engineer - Human Computer Interaction)
School/Department:	Research (AEL)
Reference:	21/108614
Closing Date:	Monday 15 February 2021
Salary:	£28,331 per annum.
Anticipated Interview Date:	Tuesday 2 March 2021
Duration:	Available for up to 24 months until 23 April 2023

JOB PURPOSE:

To support industry-focused R&D work as part of the UKRI funded FutureScreensNI, a collaboration between Queen's University and Ulster University.

To work at the cross section of storytelling & technology enabling sectors involved in film, broadcast, animation, games and immersive technologies take advantage of accelerating technology shifts.

To support interdisciplinary research contributing to the knowledge base in arts and computer science in human computer interaction.

To work closely with research teams supporting the production of academic outputs and onward development of technology demonstrators aimed at making outputs more accessible to creative industry partners.

To help perform technology transfer activities and provide technical assistance to fledgling creative industry companies.

Key themes
• Content-Centred Design – Understanding expression and experience in digital forms through Human Computer Interaction in media, cultural and social contexts
• Media Production Innovation - Building the capture, rendering and asset generating tools for Virtual production and empowering creativity.
• Human Data Interaction – exploring Data and AI applications in creative production, entertainment platforms and social contexts

MAJOR DUTIES:

1. Support industry-led research, development and knowledge transfer in the area of HCI for virtual production pipelines, real time 3D applications in the creative industries.
2. Support the development of proof of concept demonstrators for early stage user testing.
3. Write up results of own work and contribute to the production of research reports, publications and proposals.
4. Engage with industrial partners to facilitate the transfer of capabilities into commercial production.
5. Participate constructively in multi-disciplinary research activities, including staff training and development.
6. Help develop the international reputation of FutureScreens through presentations, attendance at trade-shows and visiting major companies and research and technology centres worldwide.
7. Carry out routine administrative tasks to ensure project goals are completed on time and within budget.
8. Undertake any other duties that may reasonably be requested by management.

Planning and Organising:

1. Plan own work to meet given objectives and processes within the framework of the agreed research/teaching programme.
2. Contribute to the planning of projects, reports and publications.
3. Timescales for most activities will range from 1-6 months in advance but will also contribute to longer term planning within the research group.

4.   Liaise with other team members to achieve co-ordinated progress against objectives.

Resource Management Responsibilities:
1.   Ensure that assigned research and development facilities and resources are used in an effective and efficient manner.
2.   Provide guidance as required to supporting staff and students assisting with research activities.

Internal and External Relationships:
1.   Liaise with research colleagues and support staff on routine matters.
2.   Make internal and external contacts to develop knowledge and understanding and form relationships for future collaboration.
3.   Coordinate and liaise with other members of the project team over work progress.

ESSENTIAL CRITERIA:
1.   Honours Degree, or equivalent, in Computer Science, User Experience or Product Design or related discipline with at least three years' relevant industrial experience OR minimum HND in related engineering discipline with at least five years' relevant industrial experience.
2.   Demonstrable evidence of competence in designing experiences with a range of digital technologies.
3.   Well-developed prototyping and scripting skills with direct experience with game engines such as Unity3d/Unreal.
4.   Experience of using research tools and techniques resulting in high quality project and technical reports.
5.   Demonstrate practical, problem solving approach to developing technologies that enhance User Experience across a range of digital media and content generation tools.
6.   Breadth and depth of understanding of UI/UX and function design in one or more of the following areas:
      a. Games and Immersive experiences
      b. Real-time virtual cinematograph
      c. Real time 3D production pipelines
      d. Multi-user experiences in mixed reality
      e. Industrial or Product Design
      f. Haptics and device inputs
7.   Evidence of delivering on multifaceted projects, with deadlines and budgets.
8.   Understanding of industry standard workflows in the Film/Broadcast, VFX and Games sectors.
9.   Evidence of communicating complex technical information to a range of stakeholders.

DESIRABLE CRITERIA:
1.   Hold or be about hold a relevant higher degree or PhD in Design, Human-Computer Interaction, Computer Science or related field.
2.   Experience of collaborative research and effective working in a team.
3.   Evidence of working in high technology start-ups or Media based businesses.
4.   Experience of use and impact of technology in the creative industries.
5.   Evidence of assisting preparation of bid proposals.