

**Application Developer  
KTP Associate (1.0 FTE)  
School of Simulation & Visualisation (SimVis) and Loretto Care  
Fixed Term (24 Months)**

**Introduction**

The School of Simulation and Visualisation, Loretto Care, Wheatley Group, and Innovate UK are developing a unique interactive application for use as an educational tool to prepare people to successfully maintain their own tenancy.

The innovative app will help young people moving towards adulthood, and vulnerable people living in social housing.

Based on emerging game development thinking - 'gamification' - the app will provide a platform for fun and engaging communication and learning.

Customers and staff from across Wheatley Group will co-design the app with Researchers from the School of Simulation and Visualisation, and the KTP Associate will play a leading part in this process and the development, testing and commercialisation of the app.

Once up and running, the app will help to improve tenancy sustainment and reduce the costs of a tenancy (less support, communication, repairs, voids costs etc.) It will also help to reduce homelessness.

The Virtual Home embraces and utilises technology to improve wellbeing and business performance in a digital age.

This position forms part of the Knowledge Transfer Partnership (KTP) funded by Innovate UK. To find out how KTP works with business and GSA, and the vital role you will play if you successfully secure a KTP Associate position. Please visit: [www.ktpws.org.uk](http://www.ktpws.org.uk)

**The Glasgow School of Art**

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The Glasgow School of Art is one of Europe's leading independent university-level institutions for the visual creative disciplines. Our studio-based, specialist, practice-led learning and research draws talented individuals with a shared passion for visual culture and creative production from all over the world.

Originally founded in 1845, today we have 2150 students studying across architecture, design, digital, fine art and history and theory. As we develop new academic programmes and enhance our areas of expertise and inter-disciplinary, our ambition towards 2018 is to grow our student community in Glasgow by 25%, and continue to grow our research profile and campuses in Singapore and the Scottish Highlands and Islands. Our internationalisation strategy is embedded across our academic programmes and research, connecting the GSA with some of the world's leading universities and specialist higher education institutions.

Recognised by the Scottish Funding Council as an independent, specialist institution the GSA is an important and integral part of Scotland's higher education provision. Working in partnership with universities across Scotland and the UK, our degree programmes are validated by the University of Glasgow. The University of Glasgow has validated our programmes since 1992 and whilst the Senate of the University has ultimate responsibility for the awards, there is maximum delegation to the GSA for its own quality assurance

procedures. The School, through its Academic Council, is also responsible for the development, monitoring, evaluation and updating of its academic framework.

Our 185 academic staff, 80% of which are research active, form a strong creative community united in the ambition to see GSA positioned as a global leader in studio based research and teaching, transforming thinking by developing creative approaches with new audiences, locally, nationally and internationally. As one of the UK's largest and most intensive research communities for the visual creative disciplines, GSA's research activity is clustered into the following interdisciplinary themes:

- Architecture, urbanism and the public sphere
- Contemporary art and curating
- Design innovation
- Digital visualisation
- Education in art, design and architecture
- Health and wellbeing
- Material culture
- Sustainability

Moving forward GSA has ambitious plans to develop its research profile further through internal collaboration and new partnerships with National and International Organisations. We recognise the distinctive contribution made by visual creative disciplines within the rapidly growing interdisciplinary research agenda and seek to position GSA as a global leader in this field. This will involve development and mentoring of GSA's own research talent, recruitment of the best new staff, the securing of higher levels of external research funding to support research projects and further growth in the scale and activity of GSA's PhD community.

While we are firmly rooted in Glasgow, one of Europe's leading creative cities, we are international in outlook with one of the UK's highest percentages of international students and one of Scotland's largest percentages of students from the rest of the UK. Over the last five years over £65 million has been invested in our estates including the recently opened Reid Building. Further investment is currently being planned which will create a cohesive creative campus with the iconic Mackintosh Building at its core.

We have a total income of over £30m, and our aim is to cultivate conditions in which the GSA can continue to achieve great things through what we do, with whom we do it and through creative approaches build on our existing strengths and distinctive assets, in order to:

- Achieve excellence and leadership in student-centered studio-based learning
- Engage with new audiences through inter-disciplinary research
- Extend our global reach and creative engagement
- Be a robust and efficient institution – maximising our resources and our potential

### The Studio

Our studio-based approach to learning and innovation has particular relevance in the 21<sup>st</sup> Century. The place of the studio in creating the environment for inter-disciplinarity, peer learning, critical enquiry, experimentation and prototyping can help to address many of the grand challenges confronting society and contemporary business. It provides space to bring disciplines together, exploring problems in new ways to find innovative solutions. Studio is at the heart of our pedagogy, how we work and how we engage with others.

## The School of Simulation and Visualisation

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The School of Simulation and Visualisation (SimVis) at The Glasgow School of Art is one of five Schools that combines academic study at Master's and PhD level with a broad range of research and commercial activities.

Over the last fifteen years SimVis has grown significantly concentrating on its core areas of activity which are primarily centred around the development of new technologies, tools, techniques and methodologies that support new media and digital content creation. In particular, core research focuses on human computer interaction, haptics, motion capture, real-time interaction, photorealistic 3D visualisation, serious games and ambisonic sound.

SimVis continues to be very successful in winning industrial research contracts and research funding including the Ford Motor Company (across UK, EU and USA centres), QinetiQ, BAe Systems, BBC, Historic Scotland, National Museums of Scotland, Glasgow City Council, the Scottish Funding Council, NHS Education for Scotland and The Royal College of Surgeons of Edinburgh. SimVis was also the first art school based research centre to be awarded a grant from the Engineering and Physical Sciences Research Council (EPSRC).

SimVis currently offers two taught Masters programmes in *Sound for the Moving Image and Visualisation* (with pathways in *Heritage Visualisation*, *Medical Visualisation & Human Anatomy* and *Serious Games & Virtual Reality*) as well as a range of opportunities for doctoral study. Undergraduate programmes in *Immersive Systems Design* and *Sound for the Moving Image* will start in September 2018. The present complement of Masters and PhD students is in excess of 70. At the moment, approximately twenty members of staff are employed at SimVis across its academic, research and industrial activities.

SimVis is based at purpose built, highly specified premises within The Hub at the Digital Media Quarter at Pacific Quay in Glasgow, where it continues to build on its success by developing new areas of research and commercial activity with a growing range of partners and research collaborators.

[Wheatley Group](#) is Scotland's leading housing, care and property-management group and one of the UK's best-accredited organisations. Owning or managing over 80,000 homes, Wheatley delivers award winning services to 250,000 people across Scotland. Group subsidiaries are united by a common commitment to excellence in all they do and a joint mission in 'Making Homes and Lives Better' for the people we work for and the communities in which they live.

Loretto Care, part of the Wheatley Group, is a leading provider of care and support services for a wide range of people in Scotland. No matter what a person's needs are, Loretto Care puts them at the centre of what they do. Loretto works with people to design their very own personalised care package and then supports them to achieve their goals. Loretto cares for a wide range of people including older people, young people, people and families experiencing or at risk of homelessness, and people with learning disabilities, addictions, mental health issues or alcohol related brain damage.

## **The Role**

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|----------------|---|
| Job Title      | Application Developer (KTP Associate)   |
| Location       | School of Simulation and Visualisation and Loretto Care   |
| Reports to     | Dr Steve Love (KTP Academic Lead)<br>Elizabeth Cuthbertson (Company Lead)   |
| Responsible to | Dr Matthieu Poyade (KTP supervisor)   |
| Job Purpose    | <p>Loretto has a strategic aim to increase the numbers of tenants in a sustainable tenancy (i.e. keeping their accommodation for a period longer than 12 months) over the next 3 years. Loretto also aims to achieve sustainable growth including through the diversification of its products and markets. Digital technology and learning has been identified as a key component to achieving these aims. This KTP will develop a unique, innovative interactive application (the Virtual Home application) to improve the health and wellbeing of their tenants and care service users, enabling vulnerable people to live in their homes longer. In particular the role of the KTP Associate will be:</p> <p>To undertake user requirements gathering for the virtual home application</p> <p>To analyse user initial requirements and produce system design documentation to plan development stages for the virtual home application</p> <p>To undertake the functional and pilot testing of the virtual home application and analyse the results</p> <p>To take the lead in the development of a virtual home application that will be launched on the Loretto care network</p> <p>To contribute to the research and knowledge transfer profile of the Glasgow School of Art through actively engaging in and supporting its research and knowledge transfer activity</p> |

## **Relationships**

### Internal Contacts:

- Head of School of Simulation and Visualisation
- Head of Research, SimVis
- Research staff within SimVis

### External Contacts:

Research and Development Team, Wheatley Group  
Leadership Team, Wheatley Group  
Head of Care, Loretto Care

### **Key Accountabilities**

Responsibilities will include:

- Take a lead in the design and analysis of user requirements, system design, development, pilot and testing and evaluation of the virtual home application
- Work with 3D modelling software for the development of the assets and animations that populate the digital environment
- Develop the project deliverables in collaboration the members of the KTP project team
- Plan and take a lead on all Pilot testing management, analysis and reporting activities
- To liaise and work with other team members as appropriate.
- Contribute to dissemination of the project outcomes and public engagement activities in collaboration with the project team.
- Comply with all GSA policies and procedures including Research Data Management and the GSA Research Ethics Policy
- To contribute to the commercialisation of the Virtual Home app, including business planning, as part of a multi-disciplinary team

### **Outreach**

The KTP associate is expected to contribute to relevant technical publication outputs in collaboration with the research team.

### **Teaching**

There are no teaching duties associated with this post.

### **Key Challenges**

- Contribute to the strategic planning of the development throughout the project
- Ensure that the research is carried out to timescales and deliver the agreed objectives.
- Ensure the digital tool is fully functional by the end of the contract and ensure its operability beyond the duration of the project.
- Working with a diverse range of personnel at Loretto Care and within the wider Wheatley Group including a range of tenants with various levels of individual support needs, support workers, business and marketing teams
- Undertake administrative duties appropriate to the post and any other duties as may be deemed appropriate by the research team

### **Person Specification**

#### **Experience and knowledge**

The post-holder must possess a postgraduate qualification in a Computer related discipline or equivalent experience in relevant areas (e.g. 3D modelling and Animations, Visualisation and Human Computer Interaction, Game Development). In addition, the post-holder must demonstrate:

- Experience in and current knowledge of research in data visualisation;
- Experience of working in mixed discipline environments, and comfortable in working with creative and technical disciplines;
- An effective approach to planning and organising work;
- High standards of research conduct including ethical aspects.

## **Skills**

The post-holder will be a motivated individual and a team player, with strong interpersonal, organisational and communication skills. The successful candidate will demonstrate:

- To have a solid experience with graphical modelling platforms (e.g. 3DStudio/Blender and/or Maya);
- To have a strong experience in C# scripting on Microsoft Visual Studio, and Shaders programming, and possess strong front end GUI skills with a good knowledge of the Unity Game Engine.
- Strong skills in digital design (e.g. Photoshop, Gimp, Krita...);
- Knowledge of System Modelling Language (SysML) and Unified Modelling Language (UML) in order to offer a relevant software engineer approach to the project;
- IT skills including graphical presentation (e.g. Microsoft Visio);
- Ability to engage and build relationships with people from a wide range of different backgrounds and perspectives
- Negotiation and influencing skills
- Ability to work individually and as part of a team, to agreed objectives, and to tight deadlines;
- Personal discretion in working with materials which have a degree of industrial sensitivity;
- Strong presentation skills for a range of audiences;
- Strong written communication skills;
- High levels of motivation, creativity and initiative.

**Terms and Conditions**

**Contract** Fixed Term (24 Months)

**Probationary Period** 6 months

It is recognised that there is an inevitable 'settling in' period in any post. The probationary period is therefore an opportunity for the employee to fit within the culture of the School. It should also be determined during this time whether the job is in line with expectations as expressed in pre-appointment discussions, interview and as set out in the Job Description.

**SimVis Specific Clauses:**

There are also a number of specific clauses included in contracts for staff that work in SimVis on areas such as External Business Interests, Confidentiality and Intellectual Property

**Hours** 35 hours per week

**Salary** Grade 5 (circa £26,052) per annum + £4,000 staff development budget

**Holidays** 30 days plus 11 public and statutory holidays per annum

**Pension** Option to join the Strathclyde Pension Fund

**Notice Period** 1 month