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**Job Description**

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| **Job title** | Senior Technical Manager (Virtual Production, MyWorld) |
| **Department/School** | Computer Science |
| **Job family** | Technical & Experimental |
| **Grade** | 8 |
| **Reporting to** | Prof Neill Campbell |
| **Responsible for** | Line management of studio engineers may be required. |
| **Location** | University of Bath |

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| **Background and context** |
| We are looking for highly motivated individual to work with our team on 4D capture from visual information to form the next generation of technologies for the creative industries particularly targeting virtual production. Our work includes a range of approaches from model-based tracking to data-driven volumetric/point cloud recovery – our goals are to ensure high fidelity (i.e. cinematic quality) and control (e.g. artistic direction) in the process to create new technologies for the creative industries including applications in film, TV, games and immersive AR/VR experiences.  This work is part of the wider MyWorld Project (<https://www.myworld-creates.com>). Broadcasters, filmmakers and streaming organisations are commissioning content with increasingly challenging acquisition specifications that extend realities into new hybrid spaces merging the real and the virtual. They demand content capture of faster, smaller, more colourful, darker and generally more immersive spaces.  This position plays a role in the wider research goals of tackling complex problems in motion and volumetric capture, in the creation of digital humans, in virtual production, particularly through the development of new technology making use of AI and data to drive mobile platforms – enhanced workflows for the most challenging human and natural acquisition environments. In addition, we will hide the technology behind interfaces that allow for creative users to control, assess and direct the process interactively.  These innovations will result in a new perception-driven framework for solving important video production problems that offer more efficient and flexible workflows and ultimately improved visual quality. All specifically directed to work directly with creative end-users, e.g. artists, actors and directors. Together, these innovations are capable of making a step change in performance capture and generalisation to enable creation of the next generation of more engaging visual media. |

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| **Job purpose** |
| This position will form part of a team of researchers, operational and technical staff (across the Universities of Bath and Bristol) dedicated to creating the next generation of capture technologies for the creative industries.  You will:   * take an active lead in developing technical solutions and showcase demonstrations to best deliver high quality research and teaching support in relation to Virtual Production. * take an active lead in nurturing and developing relationships with external partners leading to new research grants, projects, and commercial work. * Take an active lead in planning and problem-solving work with CAMERA’s external clients (e.g. on commercial projects) and an internal projects where technical solutions are required. * ensure the effective and efficient delivery of teaching and research support objectives. * promote a culture of safe working. * work closely with the Director of CAMERA and centre management team to ensure strategic and operational technical support needs are identified and met.   As well as working within the team, you will collaborate with industrial and academic creative partners (including Academy awarding winning VFX studios) to ensure that the solutions developed are both relevant/appropriate as well as to ensure that they will be adopted in the real-world.  This post will be associated with the Centre for the Analysis of Motion, Entertainment Research and Applications (CAMERA) at the University of Bath (<https://www.camera.ac.uk/>) that has a world-class production standard motion-capture studio, including a range of body and facial capture systems and multi-camera arrays. This is currently being expanded to include a full virtual production suite.  You will also join the vibrant Visual Computing group at Bath which comprises around 30 doctoral students, 10 post-doctoral researchers and 8 academics and presents many opportunities for collaborative work and shared publications. |

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| **Main duties and responsibilities** | |
| **1** | Research and development and production of working prototypes of new hardware and technologies for state-of-the-art innovation in Virtual Production and associated methodologies. And work with collaborators to integrate into new or existing software tools. |
| **2** | Lead the technical support and facilities management for Virtual Production at CAMERA, to ensure efficient and effective deployment of studio resources. |
| **3** | Participate in the design, project management and oversight of major refurbishment projects, CAMERA studio technology updates and purchasing. |
| **4** | Working with researchers, artists and other MyWorld collaborators to gather research goals and specifications, to perform and assess user studies and to assist with the transfer of developed technologies to real-world products. |
| **5** | Liaise closely with and support other centre staff working on related fields to the common benefit of the centre and research group. |
| **6** | Participate regularly in research group meetings with project teams, internal and external collaborators and partners. |
| **7** | Line management of studio engineers and assistant technicians. |
| **8** | Continually update knowledge and understanding in field or specialism to inform research activity and to deliver training for internal and external clients. |
| **9** | Liaise with the Director of CAMERA and the University Health & Safety team to ensure relevant issues are dealt with in a timely fashion and ensure compliance with the University Health & Safety Policy. |
| **10** | Arrange and ensure the timely collection and collation of information for annual returns for internal and external monitoring activities. |
| **11** | Advise the Director of CAMERA on relevant emerging issues affecting of likely to affect CAMERA. |
| **12** | Ensure, where relevant, that the staff development and performance review process is carried out for technical stuff in a timely manner. Manage the performance of technical staff. Participate in the recruitment and induction of new stuff. Ensure technical team leaders manage and provide cover for staff on leave, and weekend/holiday cover where appropriate |
| **13** | Identify emerging technologies, talk to vendors and suppliers, purchasing and installing relevant studio equipment (with final design sign off by the Director of CAMERA). Maintain and upgrade existing studio infrastructure/equipment |
| **14** | Build and maintain effective working relationships with internal groups, stakeholders, academic and non-academic staff. |
| **15** | Assist the Director of CAMERA in drafting of business continuity plans, grant applications, commercial delivery plans, liaising with clients and participate in relevant exercises. |
| **16** | Membership and active participation in relevant Department, Faculty and University committees as directed. |
| **17** | You will from time to time be required to undertake other duties of a similar nature as reasonably required by your line manager. You are required to follow all University policies and procedures at all times and take account of University guidance. |
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**Person Specification**

Senior Technical Manager (Virtual Production, MyWorld)

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| **Criteria** | **Essential** | **Desirable** |
| **Qualifications** |  |  |
| UG degree in relevant discipline or equivalent qualification/experience | X |  |
| PhD or equivalent industrial experience of building and overseeing world-class virtual production facilities including the delivery of cinematic quality content. | X |  |
| Membership of professional body |  | X |
| **Experience/Knowledge** |  |  |
| Post-doctoral or equivalent experience in the area of Virtual Production | X |  |
| Established track record of managing and delivering professional Virtual Production work in commercial, industrial and research environments. | X |  |
| Expert awareness of latest developments in the field of entertainment and Virtual Production technologies and professional techniques. | X |  |
| Extensive experience in delivering projects from conception to realisation in business or industry. | X |  |
| **Skills** |  |  |
| Ability to articulate a vision and strategy for development and creation of the next generation of capture technologies for the creative industries | X |  |
| Ability to develop and manage a broad portfolio of technical, research, and commercial expertise relating to new Virtual Production hardware, technologies and associated methodologies. | X |  |
| Excellent written and verbal communication skills including presentation skills | X |  |
| Excellent interpersonal and networking skills, communication style and team working | X |  |
| Evidence of positive working relationships within the research community, business and other partners | X |  |
| Strong team player | X |  |
| Skilled at dealing with challenging people and situations | X |  |
| **Attributes** |  |  |
| Commitment to excellence in innovation and in the creation and deployment of creative solutions | X |  |
| Commitment to working within professional and ethical codes of conduct | X |  |
| Ability to work to strict deadlines and under pressure, with diverse briefs | X |  |
| Innovator with the ability to think strategically and to contribute to strategic direction | X |  |
| Enthusiasm and self-motivation | X |  |