



Job Description

Job title:	Studio Engineer
Department/School:	Centre for the Analysis of Motion, Entertainment Research & Applications (CAMERA), Core Research Facilities
Grade:	7, Fixed Term to 31/03/2027
Location:	CAMERA, Core Research Facility

Job purpose

The Centre for the Analysis of Motion, Entertainment Research and Applications ([CAMERA](#)) specialises in the research, capture and portrayal of motion, bringing together work that can be applied across disciplines. Using cutting edge technology, we explore and push the boundaries of what is known and what is possible for the benefit of the creative industries, health, rehabilitation, biomechanics, sports performance, psychology and much more. Our state-of-the-art studio includes a virtual production stage, a motion capture volume, photogrammetry body and face rig as well as virtual reality and 3D scanning equipment. CAMERA is a key partner of the £35m [MyWorld programme](#), with teams working to create the next generation of content capture and creation tools for the creative industries across film, TV, games and immersive Virtual and Augmented/Mixed Reality.

We are seeking a highly skilled environment capture and digital twin creation specialist to join our team of Studio Engineers at CAMERA. The postholder will have expertise in LiDAR, Photogrammetry, volumetric capture and will focus on technical problem solving in relation to field acquisition. You will provide technological expertise to scope and conduct new research/testing; develop in-house 3D capture and rendering systems and pipelines, lead the technical delivery of research and commercial projects; co-lead the design, maintenance and operation of scanning facilities; organise and oversee acquisition and delivery of data for industry collaborators and research partners; optimise data capture and document workflows.

Experience of working with multi-disciplinary collaborations with researchers, heritage and museum institutions and with arts and theatre organisations would be beneficial.

The position is offered on a fixed term to 31 March 2027. FTE can be negotiated.

Reports to:

CAMERA Centre Manager. However, the post-holder will have considerable autonomy and will be expected to show substantial personal initiative.

Staff management responsibility

None, although day-to-day supervision of other staff e.g. student technical staff or co-supervision of doctoral or undergraduate students where required.

Special conditions

Occasional travel within the UK and Europe to visit collaborators, including overnight stays. Intercontinental travel may be requested for conference attendance (e.g. SIGGRAPH). Flexibility on working hours can at times be expected.

Main duties and responsibilities

1	Co-lead on the maintenance and operation of CAMERA's capture systems and other technologies at CAMERA.
2	Support the co-creation of research and external commercial projects. Take a lead in the technical design and iterative development of new 3D scanning solutions for the CAMERA Studio.
3	Liaise with CAMERA team to scope and deliver data capture and post-production for clients and researchers and find solutions to technical challenges.
4	Be a main point of contact for the studio facilities and take responsibility for its day-to-day technical operation.
5	Assist in preparation and delivery of capture training workshops and materials.
6	Project management: e.g. timetabling and meeting project milestones; participating in regular discussions with collaborative partners. Liaise with key stakeholders/industrial partners.
7	Report results to research investigators and clients and work with them to implement research and commercial work as required.
8	Participate regularly in group meetings and prepare and deliver presentations to project team, internal and external stakeholders, clients or funders.
9	Assist with the supervision of graduate students and undergraduate project students and the assessment of student knowledge (where required).
10	Assist with the supervision of graduate students and undergraduate project students and the assessment of student knowledge (where required).
11	Assist with preparing bids to funding bodies contribute to securing of funds for research.
12	Disseminate knowledge of research advances to inform departmental teaching effort.
13	Collaborate with graduate students, PDRAs, Research Assistants and Research Software Engineers to write up results of research and contribute to publishing of results in high-quality peer-reviewed academic literature.
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 always follow all University policies and procedures and take account of University guidance.	

Person Specification

Criteria	Essential	Desirable
Qualifications		
Educated to Degree Level	X	
Post-graduate qualification in computer vision or extensive equivalent commercial/ Industrial experience 3D environment capture and digital twin creation.	X	
Knowledge and Experience		
Expert awareness of latest developments in the field of 3D capture of environments / digital twins; and associated technologies and professional techniques.	X	
Extensive experience in delivering projects from conception to realisation in business or industry.		X
Experience in professional environments of directing and/or processing 3D capture data.		X
Experience of managing and delivering professional commercial, industrial or research projects requiring high a degree of scripting/programming and/or modelling.		X
Awareness of developments in 3D Gaussian Splatting workflows and research as well as experience in using 3DGS tools to create scans and assets.	X	
Skills		
LiDAR Scan Capture & Processing expertise with an understanding of: SLAM-basedscanners, point cloud registration and alignment, and optimising pipelines for highest quality captures.		X
Expertise in Photogrammetry with a strong understanding of: DSLR capture workflows, texture generation, mesh reconstruction and lighting management.		X
Expert user of tools and software for 3D capture data processing and asset creation, such as Agisoft Metashape, Blender, Autodesk Maya, RealityScan, Unreal Engine or Faro Scene.	X	
Ability to script in Python (Blender bpy / Maya cmds) to automate tasks such as batch-importing mesh sequences, applying materials, and rendering large datasets programmatically.		X
Ability to conduct individual research work and to communicate results effectively.		X
Ability to organise and prioritise own workload.		X
Excellent oral, interpersonal and written communication skills.		X
Attributes		
Innovation in developing creative solutions .	X	
Enthusiasm and self-motivation.	X	
Ability to plan and deliver work to meet required deadlines.	X	
Ability to be an effective team worker.	X	