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USC Institute for Creative Technologies



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USC ICT Establishes Geospatial Terrain Research Group Led by Andrew Feng, PhD

The Geospatial Terrain team focuses on constructing high-resolution 3D geospatial databases for use in next-generation simulations and virtual environments.

The USC Institute for Creative Technologies, a unit of USC Viterbi, and Department of Defense (DoD) University Affiliated Research Center (UARC), sponsored by the US Army, is pleased to announce the launch of the Geospatial Terrain Research Group, led by Andrew Feng, PhD, Associate Director.

Geospatial is one of the earliest research tracks at ICT. Focusing on constructing high-resolution 3D geospatial databases for use in next-generation simulations and virtual environments, the group utilizes photogrammetric solutions, drone platforms, EO sensors and ICT's own R&D processing pipeline to procedurally recreate 3D terrains with feature attributions. ICT has produced hundreds of 3D terrains in support of the US Army STTC, enabling crucial applications such as line-of-sight analysis, path finding, real-time terrain effects, concealment analysis, and more.

Dr. Feng holds a PhD and MS in Computer Science from the University of Illinois at Urbana-Champaign. He joined ICT in 2011 as a Research Programmer specializing in computer graphics, then as a Research Associate focusing on 3D avatar generation and motion synthesis, before becoming a Research Computer Scientist within the Geospatial Terrain Research group.

Established in 1999, the USC Institute for Creative Technologies (ICT) is a Department of Defense (DoD) University Affiliated Research Center (UARC), sponsored by the US Army. Harnessing Hollywood-derived creativity with academic innovation and military-domain expertise, ICT conducts award-winning R&D in Artificial Intelligence (AI), Computer Graphics, Geospatial Sciences, Human Performance, Learning Sciences, Modeling, Simulation & Gaming, Mixed Reality (MxR), Medical VR, Narrative, and Virtual Humans. ICT accomplishments include: 2,000 Peer-Reviewed Publications with 100,000+ Citations; 140+ Honors and Awards Highlighting Faculty and Staff; 49 Hollywood Movies/Series use ICT Technologies; 278 Intellectual Property Disclosures; 29 Patents; 3 AAAI Fellows and 2 Academy Awards (Science & Technology).

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