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Keynote

Estudio y modelado del comportamiento y la atención de los usuarios en entornos inmersivos

Ana Serrano
Assistant Professor, Universidad de Zaragoza

Abstract

Virtual reality (VR) is a rapidly expanding medium that presents both challenges and opportunities. As VR techniques and applications continue to advance, it becomes increasingly important to create immersive experiences that can fully exploit its potential. Understanding and predicting human visual behavior and user attention is an essential factor in achieving this goal. This knowledge can be key for numerous applications, for example, in designing more engaging narrative experiences, or in developing efficient compression and rendering techniques that take into account users' attention and behavior patterns. In this talk, we will address the challenges of modeling visual attention and gaze behavior in immersive VR environments.

Biographical Note

Ana Serrano is an Associate Professor at the University of Zaragoza (Spain). Previously, she was a Postdoctoral Research Fellow at the Max Planck Institute for Informatics. Her research spans various areas of visual computing, including computational imaging, perception and editing of material appearance, and virtual reality. Her interests focus on understanding and modeling human perception to enhance user experiences and facilitate content creation. Throughout her career, she has received multiple accolades, including the NVIDIA Graduate Fellowship in 2018, the Adobe Research Fellowship in 2017, the Eurographics PhD Award in 2020, the Eurographics Young Researcher Award in 2023, and the IEEE VGTC Virtual Reality Significant New Research Award in 2024.

Keynote

A Pixelated Revolution: on the Past, Present, and Future of Visual Computing

Jacopo Pantaleoni
Author and Computer Scientist, former Principal Scientist at NVIDIA

Abstract

In future history books, the 'Computing Revolution' may end up occupying a spot so central as to be comparable to the Agricultural and Industrial revolutions, with still unfolding and as-of-yet unforeseeable socioeconomic consequences that may easily end up revealing even more dramatic and unprecedented in both scale and magnitude. In this talk, we will quickly skim through its major milestones highlighting the crucial role that graphics and visuals have continuously played throughout it – from the very inception of computers, to the rise of the latest tsunami of GPU-powered Artificial Intelligence models – reflecting on the profound responsibilities that computer scientists working in this thriving field will be increasingly called to face.

Biographical Note

Jacopo Pantaleoni is an author, mathematician and computer scientist who is relying on his unique experience as a long-time industry insider to investigate the broad impact and side effects of emerging technologies on humankind. Before exploring this new side of his work, he had spent over twenty-five years doing core research at the bleeding edge of the computer graphics and high-performance computing industries that provided the pillars of the ongoing AI and Metaverse initiatives. He had pioneered the use of photorealistic rendering in the visual effects world in the late 90s, led rendering research at mental images, contributed key technology for the making of James Cameron's Avatar, and worked for over 15 years as a Principal Scientist at NVIDIA, exploring the use, design and potential of the now pervasive Graphics Processing Units powering the world's largest hyper-scale data centers and AI factories. In July 2023 he left his role at NVIDIA to focus on The Quickest Revolution, his debut book published in September 2023.