

6501 Gates Hillman Center, Time: 3:00 – 4:00 p.m.

Monday, December 16, 2019

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Towards photo-realistic face digitization from monocular videos

Abstract: Recent advances in face capture now enable digitizing high-quality 3D faces for the entertainment industry. Standardized digitization solutions, however, require tailor-made capture systems and extensive manual work, making them expensive and hard to deploy. With the advent of commodity sensors, new lightweight approaches that push the boundaries of human digitization have been introduced, slowly closing the gap of digital content creation.

In this presentation, I will talk about some of my work on face digitization from monocular videos that I developed in the last few years. The talk is structured in three parts. First, I will introduce you to the topic and my research goals. Second, I will navigate you through my work on 3D face reconstruction and tracking as well as my work on neural-based face synthesis with applications in video editing. Finally, I will conclude with some future challenges on face digitization in unconstrained settings.

Bio: Pablo Garrido is a Research Scientist at Epic Games. His research lies between Computer Vision and Computer Graphics and mainly focuses on monocular face capture and facial animation, as well as video editing and segmentation. Before joining Epic Games, he worked as a Postdoctoral Researcher at Technicolor in France. He completed his Ph.D. in 2017 from Saarland University and Max Planck Institute for Informatics in Germany, and his thesis received the Eurographics Ph.D. Award in 2018. Before starting his doctoral studies, he worked as a Research Assistant at Federico Santa Maria University in Chile, where he also received his master's degree in 2008. His research interests include markerless tracking, facial animation, video segmentation and editing, applied machine learning, and dynamic optimization problems.

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