KEYNOTE TALK

Tuesday, October 6, 2020 at 1:30pm

Object-oriented image stitching

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Abstract: Image stitching is one of the most widely used applications of computer vision, appearing in well-known applications like Google Street view and panorama mode in commercial cell phones. However, despite the prevalence of artifacts and errors, there has been little to no progress in stitching research over the last ten years. There is no generally accepted evaluation metric and relatively few attempts to directly deal with large view point changes or object movement. We describe a reframing of stitching that exploits the importance of objects, and the algorithmic and evaluation techniques that naturally result. We will also present a technique that directly addresses the most visually disruptive stitching errors and can act as an alarm bell for these errors in stitching results. These ideas can be naturally extended to the panorama algorithms widely used in smartphones. Joint work with Charles Herrmann, Chen Wang, Richard Bowen and Emil Keyder, from Cornell Tech and Google Research.



Speaker Bio-Sketch: Ramin Zabih is a professor of Computer Science at Cornell University's New York City campus, and a research scientist at Google. He is best known for his work on discrete optimization, which received test-of-time awards at ECCV12 and ICCV13. He is also the founder and president of the Computer Vision Foundation (CVF), a non-profit that cosponsors CVPR, ICCV and WACV, and was responsible for providing open access to these conferences. He served as Editor-in-Chief of IEEE TPAMI, as program chair for CVPR07 and general chair for CVPR13, ECCV18, CVPR20 and CVPR24. He is a fellow of the ACM and IEEE.