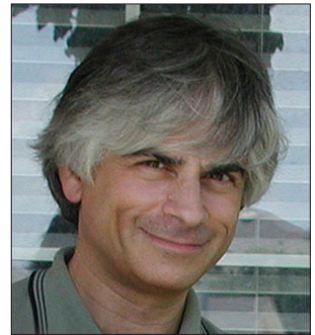


The 2014 VGTC Virtual Reality Career Award



Steven K. Feiner

The 2014 Virtual Reality Career Award goes to Steve Feiner of Columbia University, in recognition of his lifetime contributions to augmented reality and virtual reality, including seminal research on mobile augmented reality, automated design and layout, and applications to task assistance and navigation. Since 1989, Steve Feiner and his students have developed novel virtual reality and augmented reality interaction techniques and systems. His research has addressed multivariate data visualization; coordinated use of head-worn displays with wall-mounted, desk-top, and hand-held displays; automated design of augmentations that meet task goals and occlusion constraints; and experimental applications to a diverse set of fields, including tourism, journalism, archaeology, construction, field guides, and maintenance, repair, and assembly. The IEEE VGTC is pleased to award Steve Feiner the 2014 Virtual Reality Career Award.



Steven K. Feiner

Columbia University
Award Recipient 2014

Steve Feiner is Professor of Computer Science at Columbia University, where he directs the Computer Graphics and User Interfaces Lab, and co-directs the Columbia Vision and Graphics Center. He received a PhD in Computer Science from Brown University on automated generation of explanatory 3D graphics, advised by Andy van Dam. Steve started his faculty career at Columbia University in 1985, and by 1989 was working with PhD student Cliff Beshers to explore multivariate data visualization in desktop VR, using a stereo monitor and DataGlove. The following year, Steve began to develop his first AR system: an X11 window manager that embedded a small flat panel display within a large virtual information surround of 2D windows, viewed on a head-tracked, custom-built, monocular, optical see-through HWD. In 1991, with funding from an ONR Young Investigator Award, Steve and his PhD students, Dorée Seligmann and Blair MacIntyre, combined Dorée's earlier work on a rule-based system that designed pictures explaining maintenance tasks with new software developed by Blair for their HWD. The result was KARMA (Knowledge-based Augmented Reality for Maintenance Assistance), which dynamically synthesized adaptive, animated AR instructions for performing simple end-user maintenance of a laser printer.

In 1993, Steve and Steve Bryson co-organized the IEEE 1993 Symposium on Research Frontiers in Virtual Reality. Along with IEEE VRAIS 1993 (Virtual Reality Annual International Symposium), it evolved into what is now IEEE VR. (Steve would later be program co-chair for VRAIS 1995, VR 2000, and VR 2012.)

Excited about the potential for outdoor AR, in 1996, Steve, Blair, and PhD student Tobias Höllerer, created the first backpack-based mobile AR system using differential GPS to track the wearer's position and an IMU to track the orientation of a see-through HWD. Working with colleague Tony Webster, their "Touring Machine" allowed a user to walk around campus, viewing overlaid information about buildings and departments, streamed from an experimental wireless network. Later generations of his lab's indoor and outdoor AR systems would support automated layout of augmentations, multimedia news stories intertwined with the environ-

ment, "hybrid user interfaces" that combined HWDs with other complementary display technologies, multimodal interaction, building construction, equipment assembly, games, and authoring tools, much of it funded by ONR, working with Larry Rosenblum's NRL VR Lab, and NSF. Steve and his students are currently exploring urban information visualization using HWDs in concert with tabletop and hand-held displays; task assistance for collaborating users, both co-located and

AWARD INFORMATION

The IEEE VGTC Virtual Reality Career Award was established in 2005. It is given every year to an individual to honour that person's lifetime contribution to virtual & augmented reality. VGTC members may nominate individuals for the Virtual Reality Career Award by contacting Arie E. Kaufman at vgtc-vr-awards@vgtc.org