

The 2012 Virtual Reality Career Award

Lawrence Rosenblum

The 2012 Virtual Reality Career Award goes to Lawrence (Larry) Rosenblum, in recognition of his contributions to VR/AR research and systems, his leadership in developing the ONR Mobile Augmented Reality Program, and his service to the community. In the 1980s and early 1990s Larry developed visualization techniques that produced scientific advances in the ocean sciences. He subsequently focused his attention on virtual and augmented reality, where his research group, among other achievements, played a seminal role in the development of the field of mobile augmented reality. For his outstanding contributions to VR/AR research and for his role in the development of government funding programs that supported these fields, the IEEE VGTC is pleased to award Larry Rosenblum the 2012 Virtual Reality Career Award.



Lawrence Rosenblum

Award Recipient 2012

BIOGRAPHY

Majoring in mathematics, Larry Rosenblum received his BA from Queens College (CUNY) and his MS and PhD (in number theory) from The Ohio State University. Since 2005 he has been Program Director for Graphics and Visualization at the U.S. National Science Foundation (NSF). From 1994 to 2005 he was Director of the Virtual Reality Laboratory at the U.S. Naval Research Laboratory (NRL). For two years prior to that Larry was Liaison Scientist for Computer Science at the U.S. Office of Naval Research European Office (ONREUR) based in London, U.K. His early career was as a mathematician/computer scientist, primarily at NRL where he worked with physical scientists on problems in real-time data collection and in the analysis of experimental data.

While serving as Liaison Scientist for Computer Science at ONREUR (1992-1993), Larry interfaced with European leaders in graphics, visualization, and VR. He produced electronic reports on European activity, several of which were reproduced in SIGGRAPH's Computer Graphics, and published a description of European advances in VR in IEEE CG&A.

Returning to NRL, Larry founded the NRL Virtual Reality Laboratory. With encouragement from Wolfgang Krueger, Larry and his staff fabricated the first U.S. version of the Responsive Workbench and developed the DRAGON software system to utilize the Workbench for command and control operations. Other VR Lab projects included: demonstrating the value of VR systems for training shipboard firefighters; representing uncertainty for underwater environmental and acoustic parameters in a "CAVE-like" facility (CACM August 2004 cover) for better understanding; and, working with Phil Cohen (Oregon Graduate Institute), developing 3D multimodal interaction techniques based on stochastically combining voice and gesture for command and control.

The major thrust of the VR Lab's research, however, was in mobile AR. Working in collaboration with Steve Feiner (Columbia University), the group developed and demonstrated some of the earliest mobile AR systems. Among the VR Lab's achievements was an evaluation study showing

which graphical attributes were most effective for portraying occluded objects in a heads-up AR display. Based on the success of this work, ONR had Larry devise and implement a funded research program that included university researchers and industry to further advance the field. Details of Larry's role and of the ONR program in the development of the field of mobile AR can be found as a chapter in the book *Expanding the Frontiers of Visual Analytics and Visualization*, 2012, Springer Press, which was dedicated to the memory of Jim Thomas.

Larry has published over 80 technical articles. His work has appeared on The Learning Channel and CNN Headline News and in such media as the NYT Science Times, MSNBC, and Popular Science. He has served on several editorial boards including IEEE TVCG, IJVR, and *Virtual Reality*, as well as IEEE CG&A, where he initiated and edited the Projects in VR Department. He has a long history of significant service to numerous organizations and conferences in visualization and VR, including serving on the organizing committee that founded the IEEE VR Conference, on the steering committee for that conference, and as IEEE VR Conference Program Cochair in 1999 and 2001.

A Senior Member of the IEEE, Larry has received the 2008 IEEE VGTC Visualization Career Award, the NRL Alan Berman Research Publication Award, a DHS/NVAC Award for leadership in the field of visual analytics, the IEEE Meritorious Service Award, the IEEE Outstanding Contribution Award, and a Department of the Navy Special ACT Award for his achievements at ONREUR. He has been Honorary Chairman of several conferences including VRST 2007 and IEEE Virtual Reality 2005.

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 Technical Achievement Award by contacting Arie E. Kaufman at vgtc-vr-awards@vgtc.org