The 2014 Visualization Career Award

Ken Joy

The 2014 Visualization Technical Achievement Award goes to Ken Joy, University of California at Davis, in recognition of foundational research in the mathematical representation of data for visualization and for service to the community. The IEEE Visualization & Graphics Technical Community (VGTC) is pleased to award Ken Joy the 2014 Visualization Career Award.

Ken Joy
University of California at Davis
Award Recipient 2014

BIOGRAPHY

Ken Joy is a Professor in the Computer Science Department at the University of California at Davis. Professor Joy received a B.A. (1968) and M.A. (1972) in Mathematics from UCLA, a Ph.D. (1977) in Mathematics from the University of Colorado, Boulder, and discovered the field of computer graphics from a lecture given by his graduate-school racquetball partner. He served as an Assistant Professor of Mathematics and Computer Science at Northern Michigan University (1977-1980), and moved to UC Davis (1980) as an Assistant Professor in the Department of Mathematics. He was a founding member of the UC Davis Computer Science Department (1983). He holds appointments as a Faculty Computer Scientist at Lawrence Berkeley National Laboratory (since 2002), and a visiting scientist, consultant, and participating guest at Lawrence Livermore National Laboratory (since 1983).

He is the Director of the Institute for Data Analysis and Visualization (IDAV) at UC Davis. This Institute provides an interdisciplinary research environment where practical data exploration problems from a variety of driving applications can be addressed. Over the years this Institute has involved over 200 researchers both from UC Davis and their national and international partners. Within this environment, and with his research colleagues and graduate students, Professor Joy has collaborated over 200 publications focusing on computer graphics, computer-aided geometric design and scientific visualization. Specific projects have focused on large-scale data analysis, multiresolution modeling, computer vision, data compression, support for large-scale scientific simulations, and the visualization of complex data. His research focus has been to assist scientists and engineers with the evaluation and analysis of their large scale, complex data. With his colleagues, he has addressed research problems in 3D flow visualization, multiresolution analysis and texture hierarchies (Best Paper IEEE Vis 2004), tensor field visualization, material interface problems, query-driven visualization, visualization methods on large-scale parallel systems, visual data analysis, and ensemble visualization (Best Paper IEEE Vis 2013).

Professor Joy is one of UC Davis' most decorated teachers. He was awarded the Distinguished Teaching Award, UC Davis' highest honor in 1996, was awarded the Faculty Advisor of the Year in 1995, and has won numerous departmental- and student-based awards. Most citations focus on Professor Joy's drive to produce outstanding student outcomes from his classes and research efforts, and he has helped a small army of students start their own careers in the visualization and computer graphics fields.
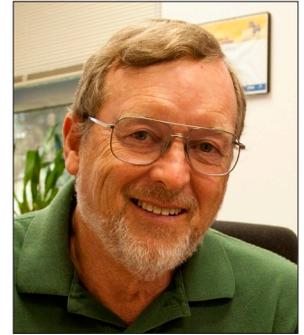
Professor Joy has served extensively in a professional capacity throughout his career. He is a member of the Association for Computing Machinery (ACM) the IEEE Computer Society, and the Society for Industrial and Applied Mathematics (SIAM). He has served on numerous program committees (Vis, EuroVis, I3D, Solid Modeling, LDAV, Shape Modeling, TopoInVis, Pacific Graphics, among others). He was papers cochair of the IEEE Visualization Conference in 2001 and 2002. He was cochair of the EuroVis 2005 and 2006 conferences, and was co-organizer of the Dagstuhl 2005 and 2007 Visualization Seminars. He was general chair of the 2007 IEEE Visualization Conference, held in Sacramento CA, and was senior chair of the 2008 IEEE Visualization Conference, held in Columbus OH. He has also served on numerous committees that work to set the national research agenda for visualization, visual analytics and visual analysis.

Most importantly, Professor Joy's success in this field is primarily due to the efforts and dedication of a large number of outstanding colleagues—students, postdocs, faculty collaborators, fellow faculty members, and staff -- and a campus environment at UC Davis, without which these accomplishments could not have been made. This honor is shared by all that made it so much fun for him to work in this field.

AWARD INFORMATION

The IEEE VGTC Visualization Technical Achievement Award was established in 2004. It is given every year to recognize an individual for a seminal technical achievement in visualization. VGTC members may nominate individuals for the Visualization Technical Achievement Award by contacting the awards chair, Larry Rosenblum, at vgtc-vis-awards@vgtc.org.

For more information, please visit http://graphics.cs.ucdavis.edu/~joy/.